

Place value relationships (Part 1)

Complete the sentences.

1. 400 is 10 times as much as _____.
2. _____ is $\frac{1}{10}$ of 70.
3. 60 is $\frac{1}{10}$ of _____.
4. _____ is 10 times as much as 100.
5. _____ is $\frac{1}{10}$ of 2,300.
6. 30 is 10 times as much as _____.

Each of these statements is false. Change one of the **bold** numbers to make each statement true.

7. **900** is $\frac{1}{10}$ of **90**.
8. **200** is 10 times as much as **2,000**.
9. **8,100** is 10 times as much as **81**.
10. **57** is $\frac{1}{10}$ of **5,700**.
11. **6,000** is $\frac{1}{10}$ of **600**.
12. **40** is 10 times as much as **4,000**.

13. □ To find 10 times as much as 300, Sanjay moved the 3 to the tens place. He says the answer is 30. Explain his mistake and how to fix it.

Name: _____

14. Circle all of the fractions that are equivalent to $\frac{6}{8}$.

$$\frac{7}{10}$$

$$\frac{3}{4}$$

$$\frac{5}{15}$$

$$\frac{12}{16}$$

Write the next two numbers in each pattern.

15. The starting number is 54. The rule is to subtract 9.

54, 45, _____, _____

16. The starting number is 24. The rule is to add 4.

24, 28, _____, _____

Last weekend, a movie theater sold 2,853 afternoon tickets and 6,892 evening tickets.

17. How many tickets were sold in all?

18. How many fewer afternoon tickets than evening tickets were sold?

19. Challenge: Kelly sets up three TVs. On the first TV, the screen flashes red every 7 seconds. The second TV flashes blue every 10 seconds, and the third TV flashes green every 12 seconds. How many minutes does it take for all three colors to show up at the same time?



Place value relationships (Part 2)

1. Match the numbers in word form and standard form.

forty thousand one hundred thirty

4,013

four thousand one hundred three

4,103

four thousand thirteen

40,113

forty thousand one hundred thirteen

40,130

Write the numbers in expanded form. Then circle the value of each underlined digit.

2. 9,088

3. 70,407

4. Use a number from the box to complete each sentence.

427

4,670

41,739

The 7 in 39,078 is worth $\frac{1}{10}$ as much as the 7 in _____.

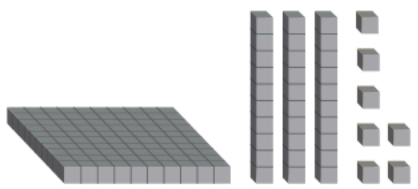
The 4 in 24,610 is worth 10 times as much as the 4 in _____.

5. Look at the sentences above. Can you write a number that would make both of them true? If yes, give an example. If no, explain why not.

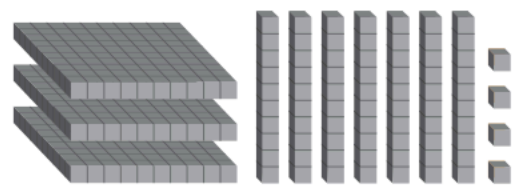
Name: _____

Write the decimal number each model represents. Each cube is one hundredth.

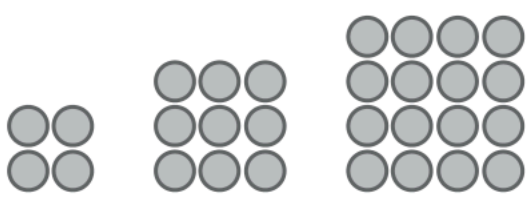
6.



7.



8. Draw the next shape in the pattern.



9. Circle all the shapes with exactly 1 pair of parallel sides.



10. **Challenge:** Use the clues to find the six-digit mystery number.

- The mystery number is even.
- The hundred thousands digit is 3 times the ones digit.
- The thousands digit is worth 10 times as much as the hundreds digit.
- The thousands digit is 5 times the tens digit.
- The ten thousands digit is worth $\frac{1}{10}$ as much as the hundred thousands digit.

What could the mystery number be? _____ , _____



Place value patterns

Complete the multiplication patterns.

1. $62 \times 10^1 =$ _____

2. $50 \times 10^1 =$ _____

$62 \times 10^2 =$ _____

$50 \times 10^2 =$ _____

$62 \times 10^3 =$ _____

$50 \times 10^3 =$ _____

Write each expression as a whole number.

3. $37 \times 10^4 =$ _____

4. $85 \times 10^3 =$ _____

Fill in the missing exponents.

5. $40 \times 10^{\boxed{}} = 4,000$

6. $19 \times 10^{\boxed{}} = 190,000$

Nellie and her friends are playing a video game. The table shows how many points each of them earns by the end of the game.

7. Order the players from highest to lowest score.

Player	Final score
Nellie	7×10^3
Cora	9×10^2
Marshall	3×10^4
Jaden	6×10^3

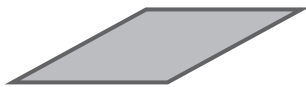
8. How many more points does Nellie score than Jaden?

Name: _____

9. Stone Creek Middle School has 1,247 students this year. There are 389 seventh graders and 426 eighth graders. How many sixth graders are there?

Count the pairs of parallel sides in each shape.

10. _____ pairs of parallel sides



11. _____ pairs of parallel sides



Write the next two numbers in each pattern.

12. The starting number is 18. The rule is to divide by 3.

18, _____, _____

13. The starting number is 6. The rule is to multiply by 2.

6, _____, _____

14. **Challenge:** Candid Candy has a big jar of bubble gum. Customers can win it if they correctly guess the number of gumballs inside the jar. There's a sign with these clues:

- There are fewer than 50 gumballs in the jar.
- If you take out gumballs 7 at a time, you will be left with 1.
- If you take out gumballs 4 at a time, you will be left with 0.
- If you take out gumballs 3 at a time, you will also be left with 0.

How many gumballs are in the jar?



Estimate products

Find each product.

1. 40×700

2. 200×600

Estimate each product.

3. 52×819

4. 187×946

5. 67×21

6. 735×462

7. In gym class, Elijah set a goal to walk for 8,000 minutes this school year. To reach his goal, he plans to walk for 120 minutes each week. If the school year is 41 weeks long, estimate how many minutes Elijah will spend walking.

8. If Elijah follows his plan, do you think he will meet his goal to walk for 8,000 minutes? Why or why not?

Name: _____

Complete the equations.

9. $\frac{7}{8} = \frac{\square}{24}$

10. $\frac{\square}{15} = \frac{4}{5}$

11. $\frac{45}{60} = \frac{3}{\square}$

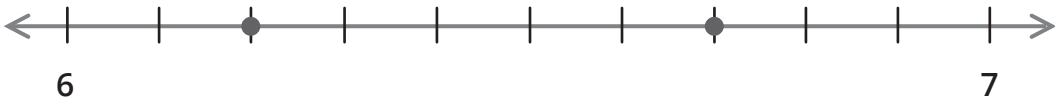
12. $\frac{2}{3} = \frac{10}{\square}$

13. $\frac{28}{36} = \frac{7}{\square}$

14. $\frac{5}{6} = \frac{\square}{48}$

Label each point on the number line with the decimal number it represents.

15.



16.



17. Challenge: Use the digits 1–9 to make three equivalent fractions. Each digit may only be used once. Not all digits will be used.

$$\frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$$



Multiply by 1-digit numbers

Multiply. Estimate to check whether each answer is reasonable.

$$\begin{array}{r} 1. \quad 7,251 \\ \times \quad 9 \\ \hline \end{array}$$

Estimate: _____

$$\begin{array}{r} 2. \quad 485 \\ \times \quad 6 \\ \hline \end{array}$$

Estimate: _____

- 3.** An airline flew 3 flights from Miami to New York City. Each plane had 138 people. How many total people flew that route?

- 4.** The same airline has one flight from New York City to London every day. Each flight is 3,470 miles. How many miles are flown on this route each week?

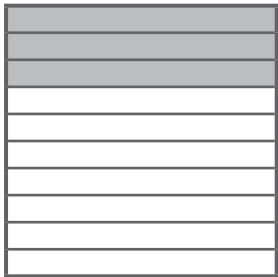
- 5.** Felix multiplied 2,064 by 8, but he made a mistake. Help Felix understand his mistake. What should the product be?

$$\begin{array}{r} 43 \\ 2,064 \\ \times \quad 8 \\ \hline 16,482 \end{array}$$

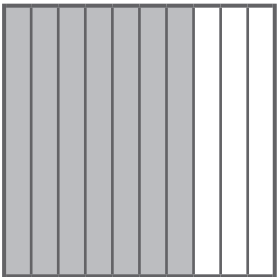
Name: _____

Write the number each model represents as a fraction and a decimal.

6. _____ or _____



7. _____ or _____



8. Tara runs a building club after school. The club uses a neon Go-Builder block set and a natural Go-Builder block set. How many blocks does the club use in all?

Go-Builder block set	Number of blocks
Rainbow	2,245 blocks
Glitter	823 blocks
Natural	957 blocks
Neon	1,642 blocks

9. **Challenge:** Martin has 4 Go-Builder block sets at home. If the total number of blocks he has is a multiple of 10, which sets could he have? Find as many answers as you can.



Multiply by 2-digit numbers

Multiply. Estimate to check whether each answer is reasonable.

1.
$$\begin{array}{r} 436 \\ \times 21 \\ \hline \end{array}$$

Estimate: _____

2.
$$\begin{array}{r} 8,029 \\ \times 57 \\ \hline \end{array}$$

Estimate: _____

3.
$$\begin{array}{r} 84 \\ \times 96 \\ \hline \end{array}$$

Estimate: _____

4.
$$\begin{array}{r} 5,913 \\ \times 43 \\ \hline \end{array}$$

Estimate: _____

5. Dakota's class went to the aquarium. She had such a good time that she wants to go once a month next year. She can get one-day tickets for \$27 each or get an annual pass for \$120.

Is it cheaper for Dakota to pay for daily tickets or for an annual pass? How much cheaper would that option be?

Name: _____

6. Circle all the shapes with exactly 2 pairs of parallel sides.



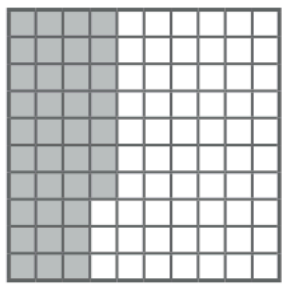
For each fraction, write two equivalent fractions.

7. $\frac{1}{5}$ _____

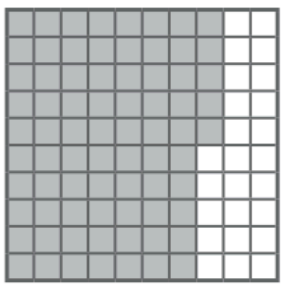
8. $\frac{3}{4}$ _____

Write the number each model represents as a fraction and a decimal.

9. _____ or _____



10. _____ or _____



11. **Challenge:** Draw a shape with 3 pairs of parallel sides.



Multiply by 3-digit numbers

Multiply. Estimate to check whether each answer is reasonable.

1.
$$\begin{array}{r} 912 \\ \times 437 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 398 \\ \times 620 \\ \hline \end{array}$$

Estimate: _____

Estimate: _____

3. At only 1,214 square miles, Rhode Island is the smallest U.S. state. The largest U.S. state, Alaska, is 548 times as large as Rhode Island. What is the area of Alaska?

4. The second-largest U.S. state, Texas, is 221 times as large as Rhode Island. In square miles, how much smaller is Texas than Alaska?

Name: _____

5. Britney's scout troop had a car wash and raised \$618. They also had a book sale and raised \$1,429. Then they used \$472 to go river rafting. How much money does Britney's scout troop have left?

6. Match each fraction in the top row to an equivalent fraction in the bottom row.

$\frac{2}{3}$

$\frac{7}{8}$

$\frac{3}{5}$

$\frac{6}{12}$

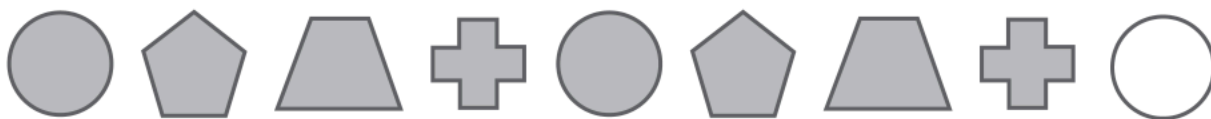
$\frac{1}{2}$

$\frac{12}{20}$

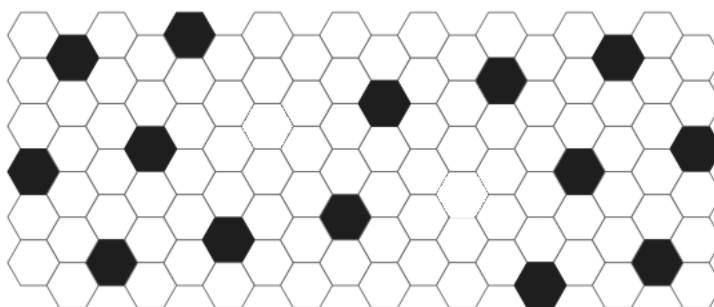
$\frac{4}{6}$

$\frac{21}{24}$

7. Draw the next shape in the pattern.



8. **Challenge:** Miles just moved into an old house. He notices there is a pattern in the floor tiles but 2 black tiles are missing. Color in the missing tiles to complete the design.



Review

Each of these statements is false. Change one of the **bold** numbers to make each statement true.

1. **4,000** is 10 times as much as **40**.

2. **7,500** is $\frac{1}{10}$ of **750**.

3. **10^5** is 10 times as much as **100,000**.

4. **10^3** is $\frac{1}{10}$ of **10^2** .

5. Use a number from the box to complete each sentence.

562

2,056

5,620

20,056

56,200

50,062

The 6 in 34,605 is worth $\frac{1}{10}$ as much as the 6 in _____.

The 2 in 1,280 is worth 10 times as much as the 2 in _____.

In word form, _____ is five hundred sixty-two.

In expanded form, _____ is $2,000 + 50 + 6$.

Multiply.

6. $100 \times 1,000 =$ _____

7. $400 \times 500 =$ _____

Write each expression as a whole number.

8. $7 \times 10^5 =$ _____

9. $90 \times 10^2 =$ _____

Name: _____

Multiply. Estimate to check whether each answer is reasonable.

10.
$$\begin{array}{r} 9,176 \\ \times \quad 37 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 852 \\ \times 614 \\ \hline \end{array}$$

Estimate: _____

Estimate: _____

12. There are 60 minutes in an hour and 24 hours in a day. How many minutes are there in one day?

13. There are 365 days in a year. How many minutes are there in one year?

Division patterns

Complete the division patterns.

1. $56 \div 7 =$ _____

2. $18 \div 3 =$ _____

$560 \div 70 =$ _____

$180 \div 3 =$ _____

$5,600 \div 700 =$ _____

$1,800 \div 3 =$ _____

Divide.

3. $1,800 \div 90 =$ _____

4. $4,000 \div 8 =$ _____

5. $550 \div 50 =$ _____

6. $360 \div 40 =$ _____

Circle the two expressions with the same value.

7. $480 \div 80$

$3,600 \div 60$

$540 \div 9$

8. $120 \div 3$

$2,000 \div 50$

$2,400 \div 80$

9. $600 \div 50$

$2,400 \div 20$

$480 \div 4$

10. The workers at a toy factory put 40 blocks in each set of building blocks. If the factory has 3,200 blocks, how many sets can they make?

Name: _____

Complete each statement with $<$ or $>$.

11. 37,651 31,756

12. 728,062 762,820

13. Kate owns a food truck that sells smoothies. Today, she sold 30 strawberry smoothies. She sold $\frac{1}{10}$ as many peach smoothies as strawberry smoothies. How many peach smoothies did Kate sell today?

Fill in the missing measurements.

14. 6 yards = _____ feet

15. 4 feet = _____ inches

16. 2 miles = _____ feet

17. 5 miles = _____ feet

18. **Challenge:** In the book *Planetary Shift*, people measure length in **doodads** and **whatsits**. These measurements relate to customary measurements in the following ways:

- 5 doodads = 150 feet
- 2 whatsits = 6 miles

Find the relationship between doodads and whatsits.

1 whatsit = _____ doodads



Estimate quotients

Estimate each quotient.

1. $875 \div 22$

2. $1,812 \div 17$

3. $481 \div 65$

4. $6,788 \div 88$

5. Dillon's football team is selling local coupon booklets to raise money for new jerseys. Their goal is to sell 750 booklets, and there are 35 players on the team. Estimate the number of booklets each player needs to sell to meet the team's goal.

6. Kendra is saving up to buy a new drum set that costs \$2,149. If she plans to save for 12 months, about how much does she need to save each month?

7. Fernando is trying to estimate $2,551 \div 43$. He tried to use the expression $2,500 \div 40$, but he got stuck. Explain Fernando's mistake and what he can do to fix it.

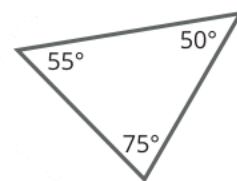
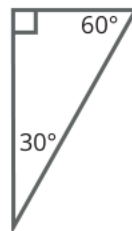
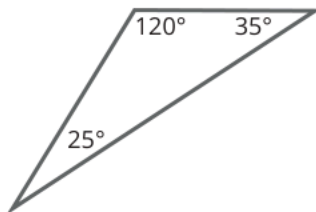
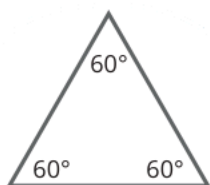
Name: _____

Add.

8. $\frac{2}{9} + \frac{5}{9} =$ _____

9. $\frac{3}{5} + \frac{4}{5} =$ _____

10. Circle all of the acute triangles.



Decide whether each statement is true or false. If it is false, change one of the numbers to make it true.

11. 2,000 mL = 2 L

12. 35 cm = 300 mm

13. 20 m = 200 cm

14. 1,200 g = 12 kg

15. Challenge: Elizabeth orders some party hats for her friend's birthday party. In the box she orders, there are 14 small purple hats, 16 small yellow hats, 10 large purple hats, and 12 large yellow hats. Elizabeth starts taking hats out of the box without looking. How many must she take out to be sure that she has at least two hats that are different sizes and colors?



Divide by adjusting an estimate

Divide by estimating and adjusting.

1. $189 \div 21 =$ _____

2. $516 \div 86 =$ _____

Estimate: $200 \div 20 =$ _____

3. $259 \div 37 =$ _____

4. $432 \div 54 =$ _____

5. Ms. Holland is putting away her math textbooks at the end of the school year. She has 154 textbooks and can fit 22 of them on a shelf. How many shelves will she fill with textbooks?

Name: _____

Complete the sentences.

6. 50 is 10 times as much as _____.
7. 700 is $\frac{1}{10}$ of _____.
8. _____ is 10 times as much as 90.
9. _____ is $\frac{1}{10}$ of 200.

Subtract.

10. $\frac{5}{8} - \frac{3}{8} =$ _____
11. $\frac{7}{10} - \frac{4}{10} =$ _____

12. Use the table to order the towns from fewest people to most people.

Town	Population
Palm Bay	38,461
Silver City	45,712
Pinebrook	29,875
May Valley	48,016

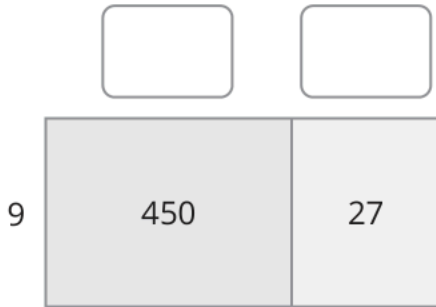
13. **Challenge:** ☆ and ◇ are both one-digit mystery numbers. How many different values can you find for ☆ and ◇ to make the statement true?

$$\frac{\star}{9} + \frac{\diamond}{9} < \frac{5}{9}$$

Divide using area models

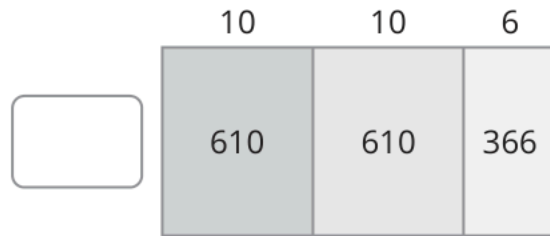
Complete each area model. Then write a division equation that matches the model.

1.



$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

2.



$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Use an area model to divide.

3. $936 \div 39 = \underline{\hspace{2cm}}$

4. $7,722 \div 66 = \underline{\hspace{2cm}}$

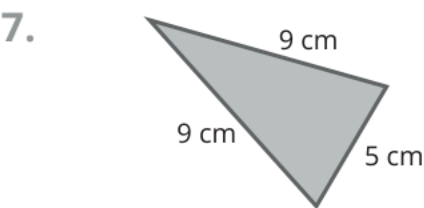
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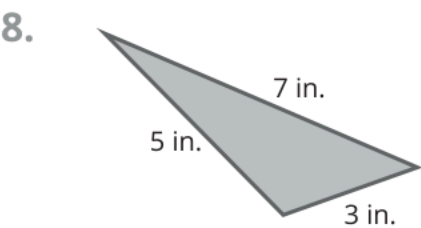
Circle the greatest number. Underline the least.

5. 37,312 36,671 35,984 341,036

6. 153,416 16,756 161,234 160,756

Classify each triangle as scalene, isosceles, or equilateral.





9. Complete the table.

Ounces	16			
Pounds	1	2	4	7

10. **Challenge:** Count the equilateral triangles in this picture. Can you find more than 10?



Divide using partial quotients

Use partial quotients to divide.

1. $459 \div 17 =$ _____

2. $6,927 \div 32 =$ _____

$$\begin{array}{r} 6,927 \\ -3,200 \\ \hline 3,727 \\ -3,200 \\ \hline 527 \\ -320 \\ \hline 207 \\ -192 \\ \hline 15 \end{array}$$

3. The game store It's All Fun and Games is looking to restock a popular board game, Escape from Math Mountain. The manager wants to order 325 copies of the game, and he can order them in cases of 24 from the manufacturer. How many cases should the manager order?

Name: _____

4. Use a number from the box to complete each sentence.

7,596

53,864

657

15,698

The 6 in 15,698 is worth 10 times as much as the 6 in _____.

The 5 in _____ is worth $\frac{1}{10}$ as much as the 5 in 7,596.

Isaac used $\frac{3}{4}$ of a cup of white sugar and $\frac{1}{4}$ of a cup of brown sugar to make muffins.

5. How much sugar did Isaac use altogether?

6. How much more white sugar than brown sugar did he use?

7. Circle all of the measurements that are equivalent to 4 quarts.

2 gallons

8 pints

16 cups

8. **Challenge:** Linda is making lemonade. Her recipe calls for 1 gallon of water, but she only has a 3-cup measuring cup and a 5-cup measuring cup. How could Linda measure out 1 gallon of water using these measuring cups?



Divide 3-digit numbers

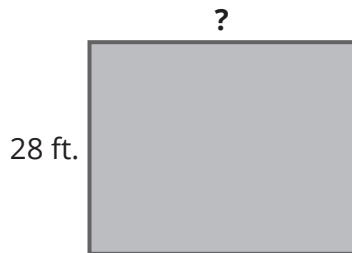
Divide. Use the standard algorithm.

1. $731 \div 17 =$ _____

2. $475 \div 36 =$ _____

$$\begin{array}{r} 475 \\ - 36 \end{array}$$

3. The rectangle's area is 980 square feet and its width is 28 feet. What is the rectangle's length?



4. Lena has 488 eggs to sell at an upcoming farmers' market. She plans to sell them in cartons of 12. How many eggs will be left over after she puts them into cartons?

Name: _____

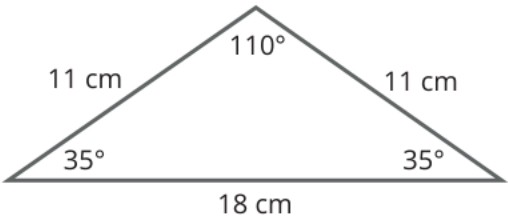
5. Rita and Jasper are taking a knitting class together. Each person is knitting a scarf. Jasper's scarf is 10 centimeters long right now. If Jasper's scarf is $\frac{1}{10}$ as long as Rita's scarf, how long is Rita's scarf?

Add.

6. $\frac{1}{5} + \frac{2}{5} + \frac{1}{5} =$ _____

7. $\frac{2}{9} + \frac{8}{9} + \frac{5}{9} =$ _____

8. Circle all the words that describe this triangle.



- acute
- equilateral
- right
- isosceles
- obtuse
- scalene

9. **Challenge:** Fill in the square so the fractions $\frac{1}{10}$ to $\frac{9}{10}$ each appear once. Make sure the sum is $\frac{15}{10}$ when you add across, down, or diagonally. Some fractions have been filled in for you.

$\frac{2}{10}$	$\frac{7}{10}$	$\frac{6}{10}$	→ $\frac{15}{10}$

Divide 4-digit numbers

Divide. Use the standard algorithm.

1. $5,887 \div 29 =$ _____

2. $4,424 \div 56 =$ _____

3. After playing at her favorite arcade, Gwen has 1,256 tickets to spend on prizes! She's trying to decide what to get at the prize zone.

Stuffed animals are 80 tickets each.
How many different animals can
Gwen buy?

Gwen can also buy points to play more
games. Each point costs 5 tickets. How
many points can Gwen buy?

Name: _____

Would a triangle with these angles be acute, right, or obtuse?

4. 35° , 65° , and 80° acute right obtuse5. 15° , 95° , and 70° acute right obtuseDecide whether each statement is true or false. If it is false, change one of the **bold** numbers to make it true.6. **40** is $\frac{1}{10}$ of **400**.7. **60** is 10 times as much as **600**.8. **75** is $\frac{1}{10}$ of **7,500**.9. **280** is 10 times as much as **28**.

10. Circle all the numbers that make this statement true.

_____ $> 73,426$

68,975

75,014

104,258

72,643

11. **Challenge:** Circle all the numbers that make both statements true. $47,864 < \underline{\hspace{2cm}}$ $\underline{\hspace{2cm}} < 52,391$

51,812

53,670

46,974

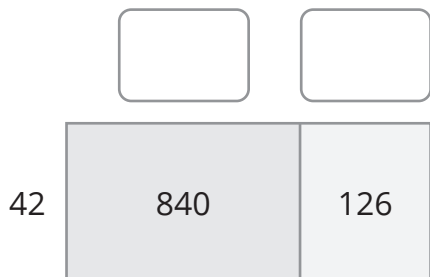
49,013



Review

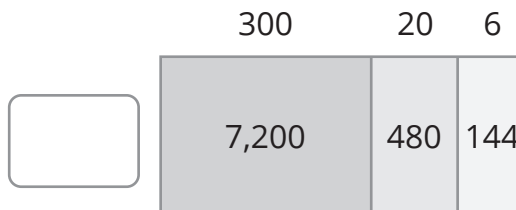
Complete each area model. Then write a division equation that matches the model.

1.



$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

2.



$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

3. Reggie divided 2,271 by 66 using partial quotients and got 27 R34. Is his answer correct? Explain.

$$\begin{array}{r} 27 \text{ R } 34 \\ 66 \overline{) 2,271} \\ \underline{-1,980} \leftarrow 66 \times 30 \\ 291 \\ \underline{-264} \leftarrow 66 \times 4 \\ 27 \end{array}$$

Divide. Use an area model for one problem and partial quotients for the other.

4. $437 \div 19 = \underline{\hspace{2cm}}$

5. $3,627 \div 31 = \underline{\hspace{2cm}}$

Name: _____

Use the standard algorithm to divide. Estimate to check each answer.

6. $779 \div 41 =$ _____

7. $5,923 \div 29 =$ _____

Estimate: _____

Estimate: _____

Emilia is making bracelets out of yarn. Her pattern uses 55 inches of yarn for each color in the bracelet.

8. How many bracelets can Emilia make with red as one of the colors if she has 850 inches of red yarn?

9. How many bracelets can she make with green as one of the colors if she has 100 feet of green yarn?

Evaluate expressions

1. Circle all of the expressions that are equal to 10.

$5 \times 3 - 5$

$7 + 14 - 3 \times 4$

$2 \times (6 + 9 \div 3)$

Add parentheses to make each equation true.

2. $16 + 24 \div 8 - 2 = 20$

3. $16 + 24 \div 8 - 2 = 3$

4. Tiana started to evaluate an expression, but she got stuck.

$4 + (43 - 11) \times 3$

$$\begin{array}{c} \swarrow \searrow \\ 4 + 32 \times 3 \end{array}$$

What should her next step be? Why?

Name: _____

Add.

5. $3\frac{1}{5} + 4\frac{2}{5} =$ _____

6. $2\frac{3}{8} + 6\frac{7}{8} =$ _____

Maple Valley School is ordering boxes of paper for the next school year. The table shows how much different types of paper cost.

Item	White copy paper	Colored copy paper	Lined paper	Construction paper	Chart paper
Price per box	\$58	\$93	\$72	\$113	\$106

7. The office staff requests 25 boxes of white copy paper. How much will the white copy paper cost?

8. The art teacher requests 12 boxes of construction paper for the art room. How much will the construction paper cost?

9. **Challenge:** Ms. Reed, an English teacher at Maple Valley School, spends \$96 on boxes of pencils and erasers for her classroom. A box of pencils costs \$28 and a box of erasers is \$6. How many boxes of pencils and erasers does she buy?

Write and interpret expressions

1. Circle all of the descriptions that match the expression $7 \times (42 + 12)$.

multiply 7 and 42, then add 12

the product of 42 and 12, times 7

add 42 and 12, then multiply by 7

7 times as much as the sum of 42 and 12

Write an expression for each description.

2. 24 more than the quotient of 42 and 6

3. find the sum of 24 and 42, then divide by 6

4. The expressions above both use the numbers 24, 42, and 6. Do you think they also have the same value? Why or why not?

5. Use a phrase from the box to complete the sentence.

$(5 \times 12) - 6$ is _____ 5×12 .

6 times as much as

6 less than

6 more than

Name: _____

Estimate the products.

6. 67×311

7. 487×608

8. Edna got a summer job as a restaurant cook. She works 40 hours a week, and she earns \$23 an hour. If the job lasts for 12 weeks, how much will Edna earn?

Subtract.

9. $9\frac{3}{7} - 6\frac{2}{7} =$ _____

10. $12\frac{1}{6} - 7\frac{5}{6} =$ _____

11. **Challenge:** Write your own multiplication word problem that has the same answer as #8. Can you write a problem with more than one step?



Represent multi-step word problems

Write an expression that represents each problem.

1. Jaden is walking to the park to play basketball with his friends. He walks for 7 minutes to pick up Aisha and Xavier and then 4 more minutes to Paula's house. From Paula's, they walk 4 minutes to get to the park. How long does Jaden walk in all?
2. When Jaden and his friends get to the park, they take turns practicing free throws. Each person gets 5 minutes at the hoop while the others practice passing. Then the 4 of them spend 20 minutes playing a game. How long do they spend playing basketball in all?
3. During the basketball game, Jaden and Paula each score 8 points. Xavier scores 3 fewer points than Jaden. Aisha scores the most points. She scores twice as many points as Xavier. How many more points does Aisha score than Paula?
4. An ice cream truck pulls up right as the game is ending. Perfect timing! Xavier offers to buy everyone a treat. He buys Aisha a snow cone for \$5. The other 3 kids get ice cream sandwiches for \$4 each. Xavier pays for the order with a \$20 bill.

What does the expression $20 - 5 - (3 \times 4)$ represent?

Name: _____

5. Circle all of the products that are greater than 10,000.

81×78

211×96

314×47

113×62

6. Circle all of the quotients that are greater than 100.

$4,182 \div 79$

$8,597 \div 41$

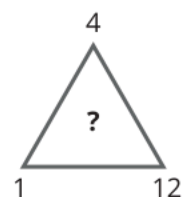
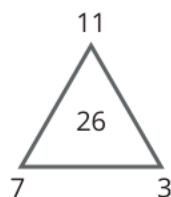
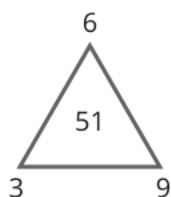
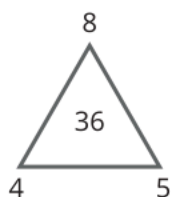
$5,243 \div 63$

$9,136 \div 28$

7. Last year, Mrs. Jackson knit sweaters as gifts for her grandchildren's birthdays. She used 6 skeins of yarn for each sweater, and each skein had 170 yards of yarn. If she has 11 grandchildren, how many yards of yarn did she use in all?

Estimate to check whether your answer is reasonable.

8. **Challenge:** Find the missing number.



Solve multi-step word problems

Write and evaluate an expression to solve each problem.

- | | |
|---|--|
| <p>1. Carla is getting a new dog! At the pet store, she buys a bag of dog food for \$25, a collar for \$8, and 2 toys for \$5 each. How much does she spend?</p> | <p>2. On Carla's next trip to the pet store, dog food is on sale. She buys 3 bags and saves \$4 on each one. How much does she spend?</p> |
| <p>3. The veterinarian said Carla should feed her dog about 2 cups of dog food a day. There are 42 cups in each of the 3 bags she bought. How many weeks will the dog food last?</p> | <p>4. Carla walked her dog to the park yesterday. It took 10 minutes to get there. On the way home, they took a shortcut that was 4 minutes faster. If they were out for 45 minutes, how long did they spend at the park?</p> |

Name: _____

Estimate the quotients.

5. $588 \div 19$

6. $4,113 \div 82$

Mrs. Santiago is making a double-berry pie. She adds $1\frac{3}{4}$ cups of blueberries and $2\frac{1}{4}$ cups of strawberries.

7. How many cups of berries does Mrs. Santiago use in all?

8. How many more cups of strawberries than blueberries does she use?

Decide whether each statement is true or false. If it is false, change one of the **bold** numbers to make it true.

9. **87** $\times$ **43** is about 3,600.

10. **4,639** $\div$ **64** is about 90.

11. **3,514** $\div$ **52** is about 70.

12. **196** $\times$ **78** is about 8,000.

13. **Challenge:** Numbers that follow each other when you count are **consecutive numbers**. For example, 4, 5, and 6 are consecutive numbers.

If the product of three consecutive numbers is about 27,000, what could the numbers be?



Review

Evaluate each expression.

1. $27 - 12 + 6$

2. $(5 + 16) \div 3 \times 2$

3. $68 + (8 + 4 \times 5)$

4. $(39 - 7) \times (61 - 59)$

5. Match the expressions to the descriptions. Cross out any descriptions that don't have a match.

$$6 \times (14 - 3)$$

6 times as much as the quotient of 14 and 3

14 more than the product of 6 and 3

multiply 6 by the difference of 14 and 3

$$14 + 6 \times 3$$

add 14 to the sum of 6 and 3

Name: _____

Without evaluating the expressions, complete each statement with $<$, $>$, or $=$.

6. $(28 - 8) \times 9$ $28 - 8$

7. $17 + 5$ $(17 + 5) - 4$

8. Cross out any expressions that do not have a value of 21.

$$25 - 16 \div 4$$

$$(35 - 7) \div (12 - 5)$$

$$75 \div 25 + 4 \times 4$$

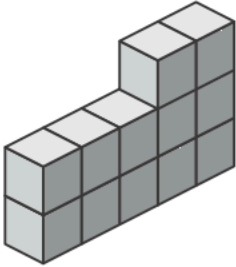
$$(10 - 3) \times (18 - 15)$$

9. Snowfrost Mountain saw record snowfall last weekend. On Saturday, it snowed 8 inches during the day and twice as much at night. On Sunday, it snowed 5 inches less than it snowed on Saturday.

Write and evaluate an expression to find how much it snowed on Sunday.

Understand volume

1. This figure is made of unit cubes. Circle its volume.



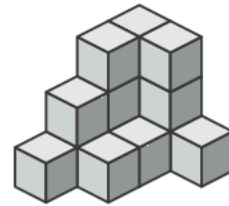
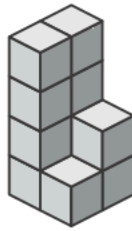
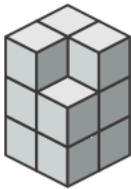
12 cubic units

12 cubic centimeters

14 cubic units

14 cubic centimeters

2. Match the figures made of centimeter cubes to their volumes. Each volume can be used more than once or not at all.



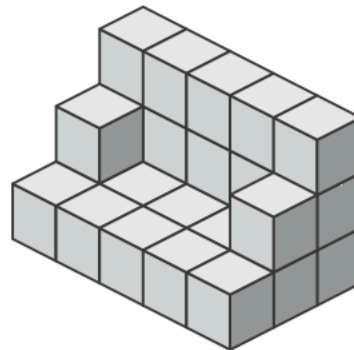
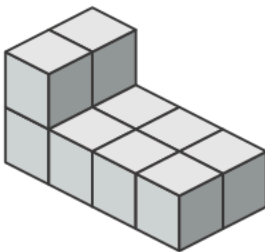
11 cubic centimeters

15 cubic centimeters

19 cubic centimeters

Clare used inch cubes to build furniture for her dolls.

3. What is the volume of this bed? 4. What is the volume of this sofa?



Name: _____

5. Circle all of the descriptions that match the expression $24 \div (4 + 2)$.

divide 24 by 4, then add 2

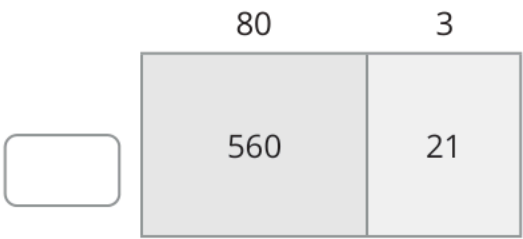
the quotient of 24 and the sum of 4 and 2

24 divided by the sum of 4 and 2

2 more than the quotient of 24 and 4

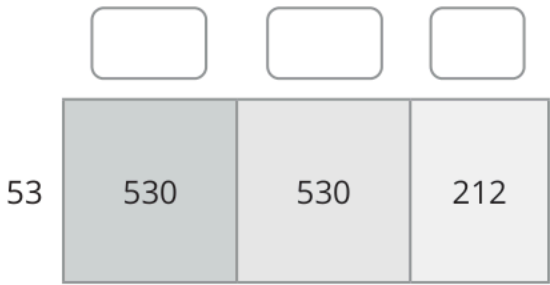
Complete each area model. Then write a division equation that matches the model.

6.



_____ ÷ _____ = _____

7.



_____ ÷ _____ = _____

8. Circle all of the numbers that are less than the one shown in the model.



$2\frac{2}{5}$

$2\frac{7}{8}$

$3\frac{1}{3}$

$2\frac{1}{4}$

9. **Challenge:** Ronnie wrote a secret message using numbers to stand for the letters in his message. Can you figure out what his message says?

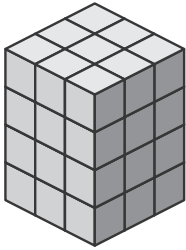
Ronnie's message: 25-15-21 3-18-1-3-11-5-4 13-25 3-15-4-5!

____ o ____ _____ _____ o _____!

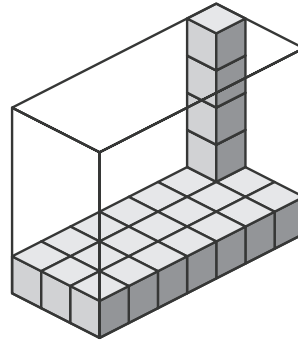
Volume of rectangular prisms

Find the volume of each rectangular prism. Each small cube is a unit cube.

1.



2.



3. Mrs. Yang is using storage cubes to organize her classroom's supply cabinet. Each storage cube has sides that are 1 foot long. She covers the floor of the cabinet with a layer of 8 storage cubes. If the cabinet is 6 feet high, what is its volume?

4. Mrs. Yang manages to fit all of her supplies in 4 layers of storage cubes. The rest of her supply cabinet is empty. What is the volume of the unused space in her supply cabinet?

5. How is finding the volume of a rectangular prism like finding the area of a rectangle?
How is it different?

Name: _____

6. The starting number for a pattern is 768. The rule is to divide by 16. Find the next 2 numbers in the pattern.

768, _____, _____

7. The fifth graders at Elm Lawn School are going to the science museum. There are 40 kids and 12 adults going on the field trip. Tickets to the museum cost \$6 per person, and the bus costs \$175 for the day. What is the total cost of the field trip?

8. **Challenge:** Fill in the missing digits to complete the division problems.

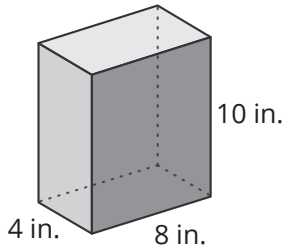
$$\begin{array}{r}
 4\boxed{} \\
 1\boxed{} \overline{) 7\boxed{}0} \\
 \underline{- 6} \downarrow \\
 12 \\
 \underline{- 12} \\
 0
 \end{array}$$

$$\begin{array}{r}
 \boxed{}5 \text{ R}\boxed{} \\
 \boxed{}6 \overline{) 2\boxed{}73} \\
 \underline{- 234} \downarrow \\
 133 \\
 \underline{- 130} \\
 \boxed{}
 \end{array}$$



Relate volume and area

1. Tyler started to find the volume of this rectangular prism. He's not sure what to do next. Help Tyler finish finding the volume.

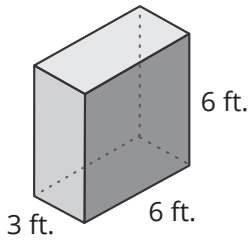


Area of base:

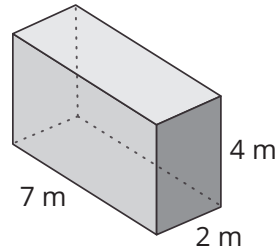
$$4 \times 8 = 32 \text{ square inches}$$

Find the volume of each rectangular prism.

2.



3.



4. Celine has two new jewelry boxes shaped like rectangular prisms. The smaller box is 2 inches tall, and its base has an area of 32 square inches. The larger box is 8 inches long, 8 inches wide, and 3 inches tall.

Complete the sentence.

The volume of the larger box is _____ times the volume of the smaller box.

Name: _____

Complete each statement with $<$ or $>$.

5. $\frac{9}{10}$ $\frac{7}{10}$

6. $\frac{1}{6}$ $\frac{1}{2}$

7. $\frac{7}{10}$ $\frac{4}{5}$

8. $\frac{3}{4}$ $\frac{2}{3}$

9. Match each number to the descriptions. Some numbers may match more than one.

9

12

20

multiple of 2

multiple of 3

multiple of 4

multiple of 5

10. Divide.

$3,842 \div 34 = \underline{\hspace{2cm}}$

11. **Challenge:** Circle the two expressions with the same value.

10 less than the sum of 10 and the third power of 10

the quotient of 10 to the fifth power and 10 to the third power

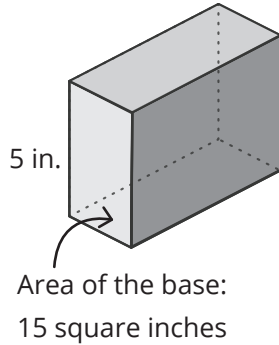
find 10 times as much as the second power of 10, then divide by 10



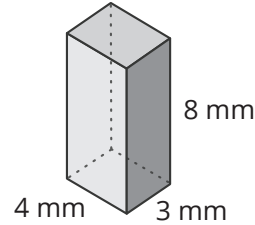
Use volume formulas

Use a formula to find the volume of each rectangular prism.

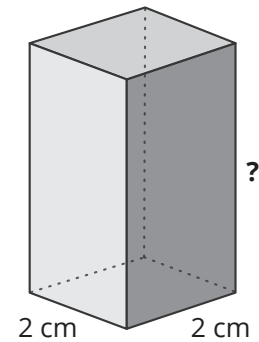
1.



2.



3. This rectangular prism has a volume of 24 cubic centimeters.
Find the missing height.



4. Mark built a rectangular raised garden bed to grow vegetables. The bed has a length of 9 feet, a width of 4 feet, and a height of 2 feet. How many cubic feet of soil does Mark need to fill the garden bed?

Name: _____

Divide.

5. $4,142 \div 38 =$ _____

6. $4,896 \div 51 =$ _____

7. Deb's smoothie cart is open a few hours on weekdays and all day on Saturdays. Deb sold 23 smoothies on Thursday and twice as many smoothies on Friday. From Thursday through Saturday, she sold a total of 241 smoothies. How many more smoothies did she sell on Saturday than on Thursday?

8. **Challenge:** Use the numbers 1, 2, 4, and 7 to write expressions that equal 0, 1, 2, and 3. Use each number exactly once in each expression.

_____ = 0

_____ = 1

_____ = 2

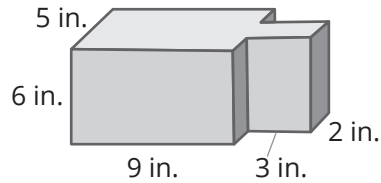
_____ = 3



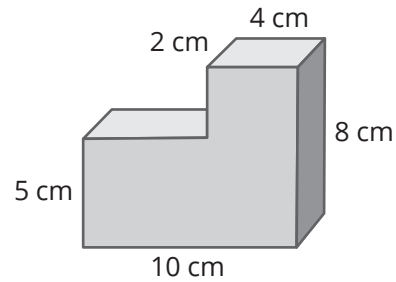
Volume of compound figures

Find the volume of each figure.

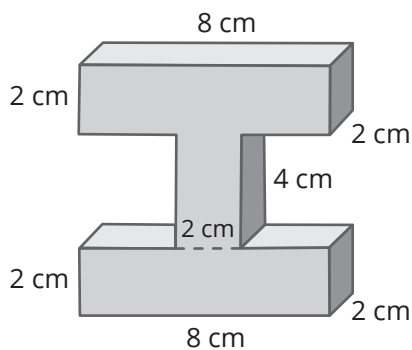
1.



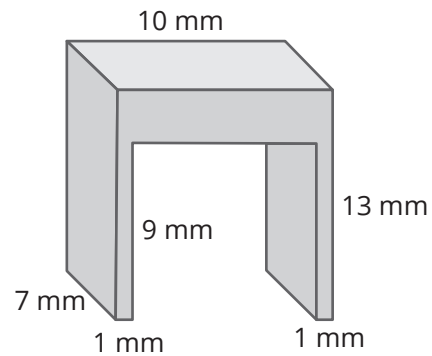
2.



3.



4.



Name: _____

Write an expression for each description.

- 5. the product of 8 and the sum of 4 and 3
- 6. 64 divided by the difference of 19 and 11
- 7. subtract 5 from twice the sum of 6 and 3

Decide whether each statement is true or false. If it is false, change the **bold** digit to make it true.

8. 26 is a multiple of **4**.

9. 55 is a multiple of **5**.
10. 72 is a multiple of **2**.

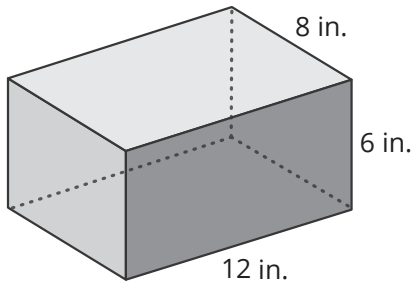
11. 63 is a multiple of **6**.

12. **Challenge:** Fill in numbers to make true equations going across and down.

1,260	÷		=	84
÷		=		÷
	=		×	
=		×		=
42	÷		=	14

Solve problems using volume

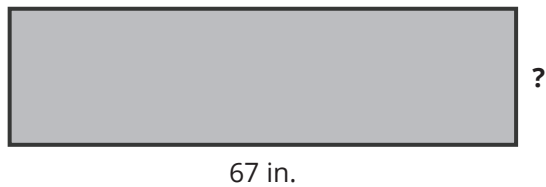
1. Suzie is packing wooden blocks into this box. Each block is 4 inches long, 2 inches wide, and 1 inch high. How many blocks fit tightly inside this box?



2. The game Caravans in the Sand comes in a box that is 9 inches long, 6 inches wide, and 2 inches high. Game boxes ship to stores tightly packed in cardboard boxes shaped like rectangular prisms. Each cardboard box fits exactly 2 games along its length, 3 games along its width, and 5 games along its height. What is the volume of each cardboard box in cubic inches?

Name: _____

3. The rectangle's area is 1,206 square inches. What is its width?



4. Write and evaluate an expression to solve each problem.

Item	Vegetable seed pack	Vegetable plant	Gardening gloves	Watering can
Price	\$2	\$6	\$9	\$22

Lin buys gardening gloves, 6 vegetable seed packs, and a watering can. She pays with a \$50 bill. How much change should Lin get back?

Alec buys gardening gloves and 4 vegetable plants. He also spends twice as much on flowers. How much does Alec spend on flowers?

5. **Challenge:** The product of 13 and 62 is 806. If you switch the tens and ones digits in both numbers, the product is still 806.

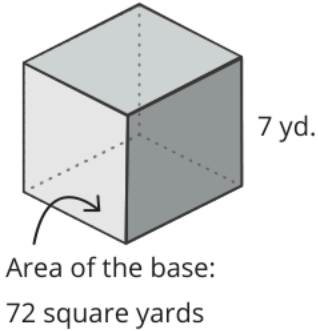
$13 \times 62 = 806$ $31 \times 26 = 806$

Can you find another pair of two-digit numbers with this property? Hint: There are 28 pairs in all, excluding easy pairs like 22×44 and 31×13 .

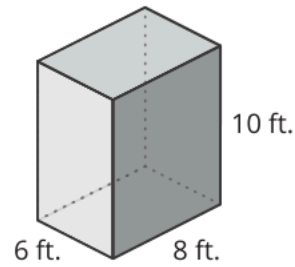
Review

Find the volume of each rectangular prism.

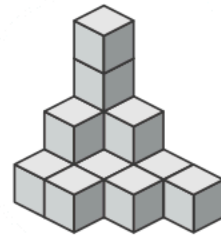
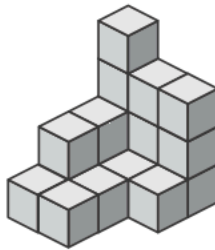
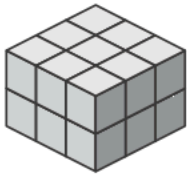
1.



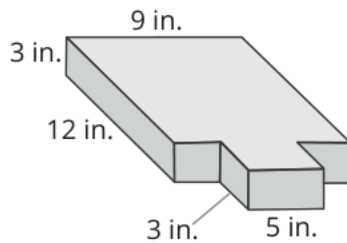
2.



3. These figures were made by stacking inch cubes. Circle the figure with the smallest volume. Draw a box around the figure with the largest volume.

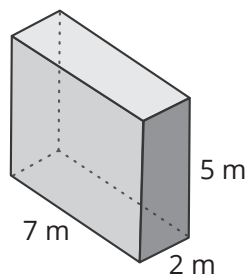


4. Find the volume of this figure.



Name: _____

5. Show two ways to find the volume of this prism. Complete the equations.



One way: $V = 7 \times \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

Another way: $V = 14 \times \underline{\hspace{2cm}}$

Choose one way and find the volume.

6. Akira's family is going camping in Glacier National Park. Her mom is shopping for a car-roof cargo box to help store their camping equipment. One brand has a box shaped like a rectangular prism that is 3 feet long, 3 feet wide, and 1 foot tall. What is the volume of the box?

7. Another brand sells a cargo box that is 4 feet long and 3 feet wide. This box holds 24 cubic feet. How tall is this box?

Estimate sums and differences

1. Match each fraction to its closest benchmark.

Fraction	$\frac{5}{6}$	$\frac{5}{11}$	$\frac{1}{7}$	$\frac{8}{9}$
Benchmark	0	$\frac{1}{2}$	1	

Use benchmarks to estimate each sum or difference.

2. $\frac{7}{8} + \frac{4}{9}$

3. $\frac{3}{5} - \frac{1}{11}$

4. $\frac{9}{10} - \frac{7}{12}$

5. $\frac{4}{7} + \frac{3}{8}$

6. Ruben is reading *Hero of the Ocean* with the book club at his school. Last week, Ruben read $\frac{1}{6}$ of the book. This week, he read $\frac{3}{8}$ of the book. Approximately what fraction of *Hero of the Ocean* has Ruben read?

7. Christina's watering can has $\frac{5}{8}$ of a gallon of water in it. She uses $\frac{2}{5}$ of a gallon to water the plants in her living room. About how much water is left in her watering can?

Name: _____

8. Match the numbers with the same value. Circle the number that doesn't have a match.

10^3 $10 \times 10 \times 10 \times 10$ 10^1
 $100,000$ $1,000$
 10×10 100 10^4
 $10 \times 10 \times 10 \times 10 \times 10$

Circle the best estimate for the measure of each angle.

9.



75° 95° 135°

10.



15° 60° 90°

Fill in the missing numbers to find each equivalent fraction.

11. $\frac{2}{3} = \frac{2 \times \boxed{}}{3 \times \boxed{}} = \frac{\boxed{}}{9}$

12. $\frac{5}{20} = \frac{5 \div \boxed{}}{20 \div \boxed{}} = \frac{\boxed{}}{4}$

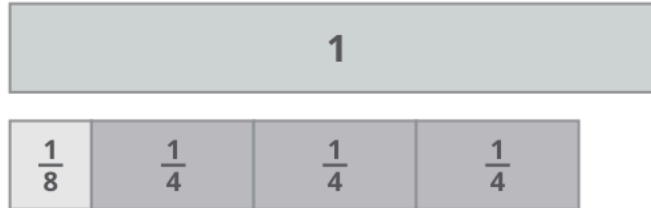
13. **Challenge:** Malik is thinking of a number. It's not exactly 500,000, but it does round to 500,000 when you round it to any place. What could his number be?



Add fractions with models

Use fraction strips to add.

1. $\frac{1}{8} + \frac{3}{4} =$ _____



2. $\frac{5}{12} + \frac{1}{6} =$ _____



3. $\frac{4}{5} + \frac{1}{2} =$ _____



Name: _____

Evaluate each expression.

4. $20 - 15 \div 5 + 8$

5. $36 - (12 + 3 \times 2)$

Divide.

6. $504 \div 24$

7. $8,343 \div 81$

8. **Challenge:** Add parentheses to make the statement true. Can you find more than two ways?

$$2 + 3 \times 5 + 4 - 3 > 20$$



Add fractions

Add.

1. $\frac{2}{5} + \frac{1}{3} =$ _____

2. $\frac{1}{4} + \frac{3}{16} =$ _____

3. $\frac{5}{12} + \frac{7}{8} =$ _____

4. $\frac{3}{10} + \frac{1}{2} + \frac{1}{5} =$ _____

5. Find each sum. Write $<$, $>$, or $=$ to complete the statement.

$$\frac{1}{6} + \frac{7}{12} \bigcirc \frac{3}{7} + \frac{1}{4}$$

6. In Chicago, it snowed $\frac{5}{6}$ of a foot on Monday. On Tuesday, it snowed an additional $\frac{1}{4}$ of a foot. How much did it snow altogether?

Name: _____

A zookeeper wrote down the weights of some animals at the Cool Springs Zoo.

African elephant: 11,023 pounds

Giraffe: 2,646 pounds

Hippopotamus: 4,409 pounds

Asian elephant: 8,818 pounds

White rhinoceros: 4,850 pounds

Bison: 1,764 pounds

7. What is the combined weight of the lightest animal and the heaviest animal?

8. How much more does the African elephant weigh than the Asian elephant?

9. Match each fraction in the top row to an equivalent fraction in the bottom row.

$$\frac{3}{9}$$

$$\frac{5}{8}$$

$$\frac{3}{7}$$

$$\frac{18}{24}$$

$$\frac{12}{28}$$

$$\frac{1}{3}$$

$$\frac{25}{40}$$

$$\frac{3}{4}$$

10. **Challenge:** Fill in numbers to make the equation true.

$$\frac{1}{\square} + \frac{\square}{4} = \frac{11}{12}$$



Subtract fractions with models

Use fraction strips to subtract.

1. $\frac{4}{5} - \frac{3}{10} =$ _____



2. $\frac{11}{12} - \frac{5}{6} =$ _____



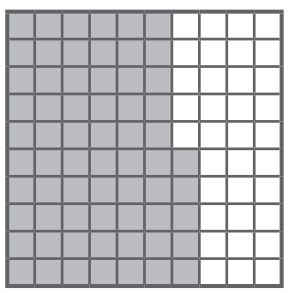
3. $\frac{2}{3} - \frac{1}{4} =$ _____

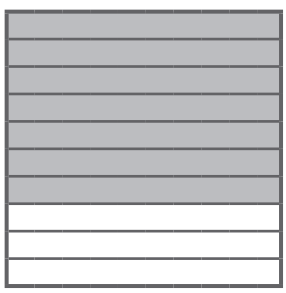


Name: _____

4. Wyatt is saving for a new tablet. He saved \$25 he got for his birthday and \$15 he earned mowing the lawn. He also plans to save \$35 from his tutoring earnings each month. If the tablet costs \$215, how many months will Wyatt need to save for?
Write and evaluate an expression to solve.

5. Write the decimal each model represents. Draw a star next to the one that is greater.

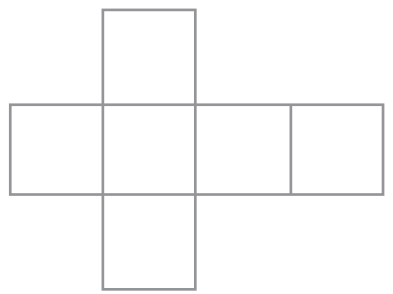




6. **Challenge:** Kyla is creating her own board game. As part of the game, she's making a paper cutout she can fold into a six-sided die that follows these rules:

- It has the numbers 3, 5, 7, 11, and 13.
- Anytime you add numbers on opposite faces, you get the same sum.

Find the last number Kyla needs for her die. Then fill out the diagram to show what her die could look like.



Subtract fractions

Subtract.

1. $\frac{7}{10} - \frac{2}{5} =$ _____

2. $\frac{7}{9} - \frac{1}{4} =$ _____

3. $\frac{5}{8} - \frac{5}{12} =$ _____

4. $\frac{4}{15} - \frac{1}{10} =$ _____

5. Lorenzo has a science test on Friday. He studied for $\frac{3}{4}$ of an hour on Wednesday and $\frac{2}{5}$ of an hour on Thursday. How much longer did he study on Wednesday than on Thursday?

6. Andrew made pasta for dinner. He used $\frac{1}{2}$ of a stick of butter for the pasta sauce and $\frac{1}{4}$ of a stick of butter for garlic bread. If he started with $\frac{7}{8}$ of a stick of butter, how much butter does he have left?

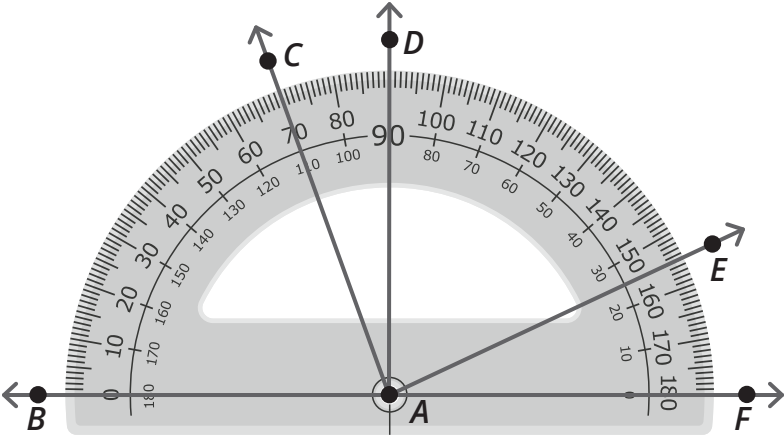
Name: _____

7. Round each number to the nearest thousand. If you round up, write the answer above the number. If you round down, write the answer below it. The first one is rounded for you.

6,000

5,811 415,174 17,356 8,295 39,503

8. Use the protractor to find the measure of each angle.



$\angle CAB$ _____

$\angle EAF$ _____

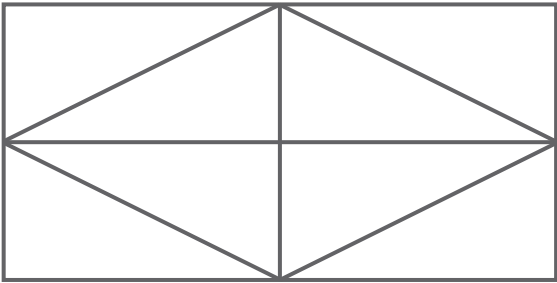
$\angle BAE$ _____

$\angle BAF$ _____

$\angle FAC$ _____

$\angle CAD$ _____

9. Challenge: Are there more rectangles or right triangles in this picture?



Least common denominators

Find the least common denominator.

1. $\frac{4}{7}$ and $\frac{19}{21}$

2. $\frac{5}{9}$ and $\frac{1}{12}$

Add or subtract.

3. $\frac{1}{3} + \frac{4}{5} =$ _____

4. $\frac{7}{10} - \frac{3}{8} =$ _____

5. Avery made some trail mix to take on a hike. She used $\frac{1}{4}$ of a pound of dried fruit, $\frac{1}{16}$ of a pound of chocolate candies, and $\frac{5}{8}$ of a pound of peanuts.

How many pounds of trail mix did Avery make?

Avery gave her friend $\frac{1}{2}$ of a pound of trail mix. How much did she have left?

Name: _____

Reagan ordered drinks to sell at her grocery store.

6. Reagan got 75 jugs of water, each of which is 128 ounces. How many ounces of water did she get?
7. Reagan also got 780 bottles of sports drinks. If each pack of sports drinks has 12 bottles, how many packs did she get?

8. Franco tried to solve $4,782 \div 36$ using partial quotients.

$$\begin{array}{r}
 150 \text{ R } 30 \\
 36 \overline{) 4,782} \\
 \underline{- 3,600} \leftarrow 36 \times 100 \\
 1,182 \\
 \underline{- 1,080} \leftarrow 36 \times 30 \\
 102 \\
 \underline{- 72} \leftarrow 36 \times 20 \\
 30
 \end{array}$$

What mistake did Franco make?

What is the correct answer? _____

9. **Challenge:** Brandon ordered 2 pizzas for his sleepover. Sean ate $\frac{1}{2}$ of one pizza, and Brandon ate $\frac{2}{3}$ of the other pizza. Diego ate $\frac{1}{4}$ of one pizza and $\frac{1}{6}$ of the other. If each pizza has 12 slices, how many slices are left?



Add and subtract fractions

Evaluate the expressions.

1. $\frac{5}{9} + \frac{1}{6}$

2. $\frac{1}{2} - \left(\frac{3}{4} - \frac{4}{7}\right)$

3. $\frac{9}{10} - \frac{2}{3} + \frac{1}{5}$

4. $\frac{3}{5} - \frac{1}{8}$

5. Circle the two expressions that have equal values.

$$\frac{5}{6} - \frac{1}{3}$$

$$\frac{11}{16} - \left(\frac{1}{4} + \frac{1}{8}\right) + \frac{3}{8}$$

$$\frac{2}{3} - \left(\frac{5}{8} - \frac{11}{24}\right)$$

Name: _____

6. Match each sentence with the number it describes.

- This number is 10 times as much as 10^3 .100
- This number is $\frac{1}{10}$ of 10^2 .10,000
- This number is $\frac{1}{10}$ of 10^3 .1,000
- This number is 10 times as much as 10^2 .10

7. One morning, volunteers at a food bank unpacked 84 cases of canned food. Each case had 48 cans. That afternoon, they gave away 1,250 cans of food to families. They gave away another 1,645 cans of food that evening. How many cans were left?

Estimate to check whether your answer is reasonable.

8. **Challenge:** Fill in the grid so that every number going across or down rounds to 3,000 when you round it to the nearest thousand. Use every digit from 0 to 9 at least once.

3	2	3	2	→ 3,000

↓
3,000



Add and subtract mixed numbers

Add or subtract.

1. $8\frac{4}{5} - 2\frac{3}{7} =$ _____

2. $13\frac{1}{4} + \frac{7}{12} =$ _____

3. $4\frac{8}{17} + 16 =$ _____

4. $\frac{5}{6} + 4 - 1\frac{5}{8} =$ _____

5. A landscaper is ordering river rock for a project. She needs $1\frac{1}{4}$ tons of rock to fill a pathway in the backyard. Another $3\frac{2}{3}$ tons is needed for a garden area on the side of the house. How many tons of river rock is that in all?

6. The landscaper plans to make two trips to carry the river rock to the project site. On her first trip, she fits $2\frac{5}{6}$ tons of rock in her truck. Will she carry more or less rock on her second trip? How much more or less?

Name: _____

Fill in the missing exponents.

7. 10^3 is 10 times as much as $10^{\square}$.

8. 10^2 is $\frac{1}{10}$ of $10^{\square}$.

9. $10^{\square}$ is 10 times as much as 10^5 .

10. $10^{\square}$ is $\frac{1}{10}$ of 10^4 .

11. Match each expression to its value.

$24 \div (6 \div 2)$	$3 + 5 \times 2 - 8$	$7 \times (5 - 3) - 8$	$9 - 6 \div 3$
5	6	7	8

12. Mark 0.4, 0.15, and 0.73 on the number line.

Complete each statement with $<$ or $>$.

0.4 0.15 0.4 0.73 0.15 0.73

13. **Challenge:** Fill out the circles using the numbers from 2 to 10. The product of the numbers in the top row must be equal to the product of the numbers in the bottom row.

Add mixed numbers with regrouping

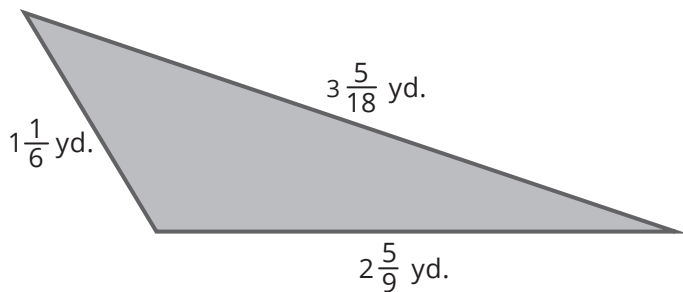
Add.

1. $6\frac{3}{5} + 8\frac{9}{10} =$ _____

2. $\frac{7}{9} + 21\frac{1}{4} =$ _____

3. Grace and Camilla practiced the long jump at track practice. Grace's longest jump was $12\frac{5}{6}$ feet. Camilla jumped $1\frac{3}{4}$ feet farther than Grace. How far did Camilla jump?

4. Find the perimeter of the triangle.



Name: _____

5. Circle the two numbers with the same value in each row.

1,000

 10^4 $10 \times 10 \times 10 \times 10$ 10^2 10×10

one thousand

10,000

 10^5

ten thousand

6. During a busy lunch rush, Lily served 1,044 dumplings at her restaurant. If each order has 12 dumplings, how many orders did she serve?

7. Lily sold \$1,305 worth of dumplings during that lunch rush. How much does an order of dumplings cost?

8. **Challenge:** A group of 7 friends ordered some dumplings and a few pots of green tea to share. The green tea cost a total of \$24, and the friends split the total bill evenly. If each person's share of the bill was \$12, how many orders of dumplings did the group get?



Subtract mixed numbers with regrouping

Subtract.

1. $6\frac{1}{5} - 1\frac{2}{3} =$ _____

2. $23\frac{5}{8} - \frac{5}{6} =$ _____

3. Lillian has $2\frac{1}{3}$ pounds of frozen blueberries. If she uses $1\frac{3}{4}$ pounds to make blueberry cobbler, how many pounds of blueberries will be left?

4. Rudy tried to find $11 - 2\frac{3}{8}$, but he made a mistake. Help Rudy fix his work.

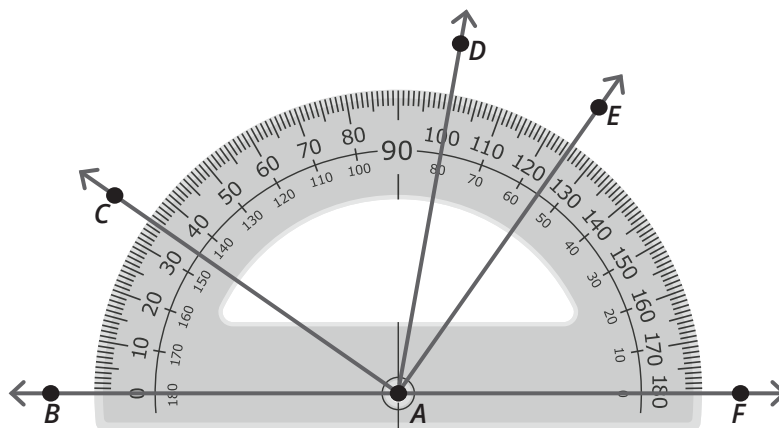
$$\begin{array}{r} 11 \\ - 2\frac{3}{8} \\ \hline 9\frac{3}{8} \end{array}$$

Name: _____

5. The starting number for a pattern is 3,249. The rule is to divide by 19. Find the next two numbers in the pattern.

3,249, _____, _____

6. Molly used a protractor to measure some angles. Then she wrote 3 statements about them. Decide whether each statement is true or false.



- The measure of $\angle CAD$ is 55° .
- The measure of $\angle FAC$ is greater than the measure of $\angle BAE$.
- If you put $\angle BAC$ and $\angle EAF$ together, you would get a right angle.

7. **Challenge:** Molly also used the protractor to draw an angle. The measure of her angle is greater than twice the measure of $\angle CAD$, but it's less than the measure of $\angle BAF$. Is Molly's angle acute, right, or obtuse? Explain how you know.



Multi-step problems with mixed numbers

1. Joel is making a large batch of chili for a cook-off. He has $1\frac{1}{3}$ cups of beans in his fridge, and he buys another 3 cups at the grocery store. If he plans to use $3\frac{3}{4}$ cups of beans to make chili, how much will be left?
2. Sam, Jayla, and Quincy are measuring their heights. Sam is $4\frac{5}{6}$ feet tall, Jayla is $\frac{1}{12}$ of a foot taller than Sam, and Quincy is $\frac{1}{4}$ of a foot taller than Jayla. How tall is Quincy?
3. Rosa bought an 8-foot piece of lumber to repair the steps on her porch. She cut two pieces that were each $3\frac{2}{3}$ feet from the board. What is the length of the leftover piece?
4. Kenneth asked his classmates about their favorite sports. He found that $\frac{1}{24}$ of them picked baseball, $\frac{1}{2}$ of them picked basketball, $\frac{3}{8}$ of them picked football, and the rest of them picked soccer. What fraction of his classmates picked soccer?

Name: _____

5. Isaiah is biking across the country to raise money for charity. His trip is 2,968 miles, and he plans to split the distance evenly over 53 days. How far will he bike each day?

6. Mark 0.61 and 0.47 on the number line.



What are two decimals that are greater than 0.61? _____ and _____

What are two decimals that are less than 0.47? _____ and _____

What are two decimals that are between 0.47 and 0.61? _____ and _____

7. Round each number to the nearest thousand. Then match each number to the phrase that describes it.

15,497

14,572

13,720

16,811

15,679

rounds to 14,000

rounds to 15,000

rounds to 16,000

rounds to 17,000

8. **Challenge:** Use four 4s and any operations to write expressions that equal 1 and 2.

_____ = 1

_____ = 2



Review

Add or subtract.

1. $\frac{1}{2} + \frac{2}{7} =$ _____

2. $\frac{8}{9} - \frac{1}{3} =$ _____

3. $5\frac{1}{6} + 5\frac{7}{8} =$ _____

4. $8\frac{1}{7} - 4\frac{1}{4} =$ _____

5. Add or subtract. Then write the expressions in order from least to greatest.

$$1\frac{11}{12} - \frac{3}{4}$$

$$\frac{17}{18} + \frac{1}{6}$$

$$1\frac{5}{9} - \frac{2}{3}$$

_____, _____, _____

6. Cassie wants to beat her best time on the video game *Island Odyssey*. Her record for the first level is $\frac{5}{6}$ of a minute. Last week, it took her $\frac{1}{4}$ of a minute longer than that. How long did it take her to finish the level last week?

Name: _____

7. The starting number for a pattern is $8\frac{7}{24}$. The rule is to add $1\frac{3}{8}$. Find the missing numbers in the pattern.

$$8\frac{7}{24}, \underline{\hspace{2cm}}, \underline{\hspace{2cm}}, 12\frac{5}{12}, \underline{\hspace{2cm}}$$

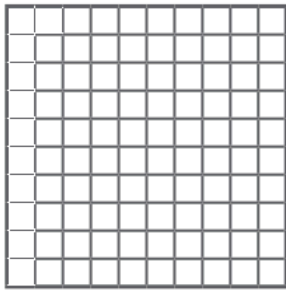
8. Haley bought a 25-pound bag of soil to repot some of her plants. After she repotted the plants, the bag had $17\frac{5}{8}$ pounds of soil left in it. How much soil did she use to repot her plants?

9. Keenan went mountain biking last weekend. The first trail he rode was $10\frac{1}{2}$ miles long. After he stopped for some water, he rode a trail that was $5\frac{2}{5}$ miles long. He was too tired to ride the last trail he had planned, which was $8\frac{3}{10}$ miles long, so he chose a different one that was $1\frac{7}{20}$ miles shorter. How many miles did Keenan ride in all?

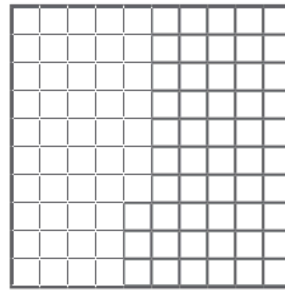
Relate decimals and fractions

Shade a model to show the fraction or decimal number. Then write an equivalent number in the other form.

1. $\frac{11}{100} =$ _____



2. $0.47 =$ _____



Write each fraction or mixed number as a decimal number.

3. $\frac{8}{10} =$ _____

4. $1\frac{21}{100} =$ _____

5. $12\frac{9}{10} =$ _____

6. $\frac{6}{100} =$ _____

Write each decimal number as a fraction or mixed number.

7. $0.53 =$ _____

8. $7.1 =$ _____

9. $0.05 =$ _____

10. $20.24 =$ _____

11. Florence made a volcano for a science experiment. For the first eruption, she used 0.25 liters of vinegar. She wanted a bigger eruption the second time, so she used 0.3 liters. Write each amount of vinegar as a fraction.

Name: _____

12. Circle all of the expressions that are equal to $\frac{7}{12}$.

$2 - \frac{5}{12}$

$\frac{3}{4} \times \frac{7}{9}$

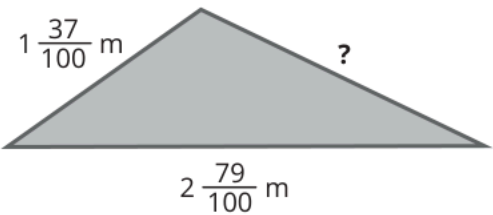
$\frac{1}{3} \div 4 + \frac{1}{2}$

13. Colton is going on a camping trip. The table shows the weight of the items he plans to pack.

Item	Weight (pounds)
Tent	$2\frac{1}{16}$
Sleeping bag	$1\frac{3}{8}$
Food	$2\frac{1}{2}$

Is the total weight closer to 5 pounds or 6 pounds? Explain how you know.

14. **Challenge:** The perimeter of the triangle is 6 meters. Find the missing side length. Write your answer as a fraction and a decimal number.



Decimal place value

Complete the sentences.

1. 5 is 10 times as much as _____. 2. _____ is $\frac{1}{10}$ of 0.03.
3. 0.9 is _____ 9. 4. 0.04 is $\frac{1}{10}$ of _____.
5. 0.01 is _____ 0.001. 6. _____ is 10 times as much as 0.007.

Which numbers make each sentence true? Circle all of them.

7. The 7 in _____ is worth 10 times as much as the 7 in 30.067.

84.97

0.78

6.174

8. The 6 in _____ is worth $\frac{1}{10}$ as much as the 6 in 6.132.

60.543

5.06

0.677

9. The 1 in _____ is worth 10 times as much as the 1 in 200.019.

8.18

205.1

0.414

10. On Friday, it snowed 0.5 inches in the town of Hudson. It snowed 10 times as much on Saturday. How many inches of snow fell in Hudson on Saturday?

Name: _____

11. Match each sum or difference to the phrase that best describes it.

$\frac{5}{8} + \frac{4}{5}$

$\frac{6}{7} - \frac{9}{11}$

$\frac{5}{9} - \frac{1}{6}$

$\frac{7}{12} + \frac{3}{8}$

about 0

about $\frac{1}{2}$

about 1

about $1\frac{1}{2}$ **12.** Vince keeps his betta fish in a tank shaped like a rectangular prism. The tank is 16 inches long, 8 inches wide, and 10 inches high. What is the volume of the tank?**13.** Vince wants to add some neon tetra fish to his fish tank, so he buys a larger tank. The new tank is $1\frac{1}{5}$ times as tall as his old tank, and its base covers an extra 160 square inches. What is the volume of the new tank?**14. Challenge:** What are the greatest and least numbers you can make by adding, subtracting, multiplying, or dividing two of these numbers?

$\frac{1}{9}$

8

4

$\frac{1}{2}$

6

$\frac{1}{10}$



Read and write decimals

1. Match the numbers in different forms.

72.035

$$7 \times 100 + 2 \times 10 + 3 \times \frac{1}{10} + 5 \times \frac{1}{100}$$

720.35

seventy-two and thirty-five thousandths

7.235

seventy-two thousand thirty-five

72,035

$$7 \times 1 + 2 \times 0.1 + 3 \times 0.01 + 5 \times 0.001$$

Write each number in two other forms.

2. Standard form: 0.659

Expanded form: _____

Word form: _____

3. Standard form: _____

Expanded form: _____

Word form: two hundred forty-two and eighty-nine thousandths

4. Standard form: _____

Expanded form: $1 \times 10 + 4 \times 1 + 6 \times \frac{1}{10} + 3 \times \frac{1}{100}$

Word form: _____

Name: _____

5. Alexis is buying bins to organize her art supplies. She is deciding between plastic bins and fabric bins. The plastic bins are rectangular prisms. Each one is 10 inches long, 8 inches wide, and 6 inches high. The fabric bins are cubes with sides that are 8 inches long. Which bins are larger? How much larger are they?

Evaluate the expressions.

6. $1\frac{1}{2} - \left(\frac{1}{4} \div 2 + \frac{3}{8}\right)$

7. $\frac{3}{10} + 4 \times \frac{2}{5} \times 2\frac{1}{4}$

8. **Challenge:** Christine packed 4 shirts, 3 pairs of shorts, and 2 pairs of shoes for a weekend trip. How many different outfits can she make from those clothes?



Compare decimals

Circle all of the numbers that make each statement true.

1. $14.075 < \underline{\hspace{2cm}}$

14.08

14.008

1.4075

14.125

2. $2.5 = \underline{\hspace{2cm}}$

2.05

2.50

20.5

2.500

3. A woodworker measures the thickness of several boards in her shop.

Board	Pine	Cedar	Walnut	Maple
Thickness (inches)	1.522	1.48	1.5	1.463

Which board is the thickest? _____

Order the boards from thinnest to thickest.

_____, _____, _____, _____

4. Zane says that 27.055 is greater than 27.42 because 55 is greater than 42. Do you agree with Zane? Explain why or why not.

Name: _____

5. Nick is a zookeeper at the Silver City Zoo. One of his duties is to feed the zoo's three big cats each day. They get a total of $23\frac{7}{8}$ pounds of food. The lion gets $11\frac{1}{2}$ pounds, the tiger gets $9\frac{1}{4}$ pounds, and the cheetah gets the rest. How many pounds of food does the cheetah get?

Estimate to check whether your answer is reasonable.

6. Match the expressions with the same value.

$$\frac{4}{9} \times \frac{3}{8}$$

$$\frac{2}{5} \times \frac{1}{8}$$

$$\frac{6}{7} \times \frac{5}{6}$$

$$\frac{1}{2} \div 3$$

$$2 \div \frac{1}{6}$$

$$4 \div \frac{1}{3}$$

$$\frac{1}{4} \div 5$$

$$\frac{4}{7} \times \frac{5}{4}$$

7. **Challenge:** Are there any numbers between 1.24 and 1.25? If yes, give an example. If no, explain why not.



Round decimals

1. Complete each sentence.

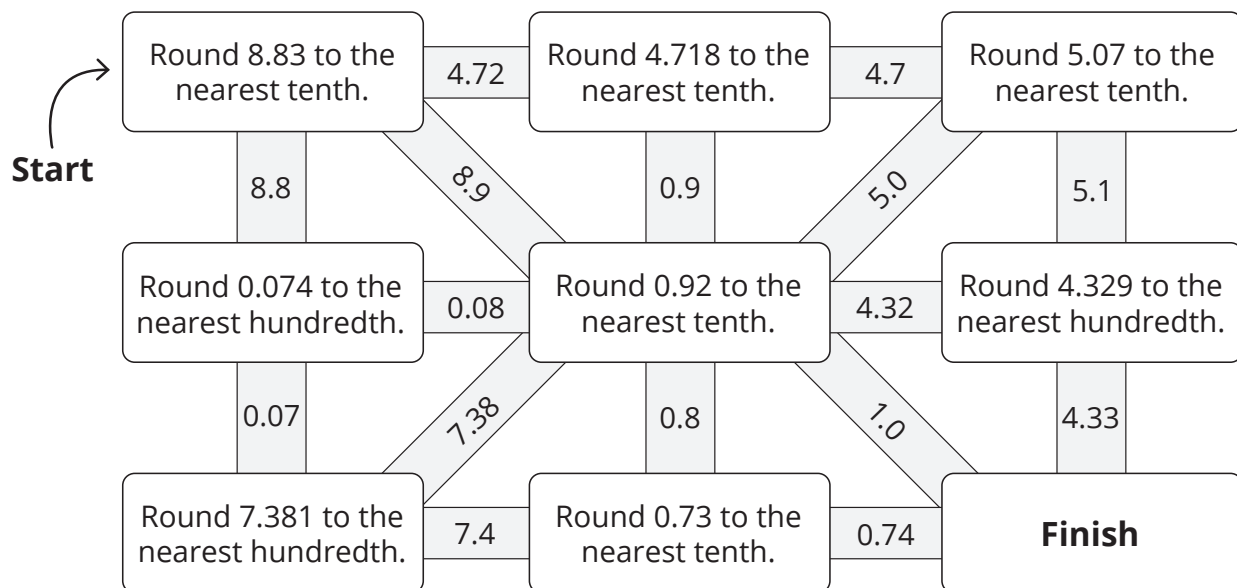
21.539 rounded to the nearest tenth is _____.

3.76 rounded to the nearest whole number is _____.

871.095 rounded to the nearest hundredth is _____.

2. Autumn says that 5.996 rounds to 6 if you round to the hundredths place. Do you agree or disagree with Autumn? Why?

3. Round the numbers to find the correct path through the maze.



Name: _____

Ava is learning about waterfalls in her home state of Washington. She made a table with some of their heights.

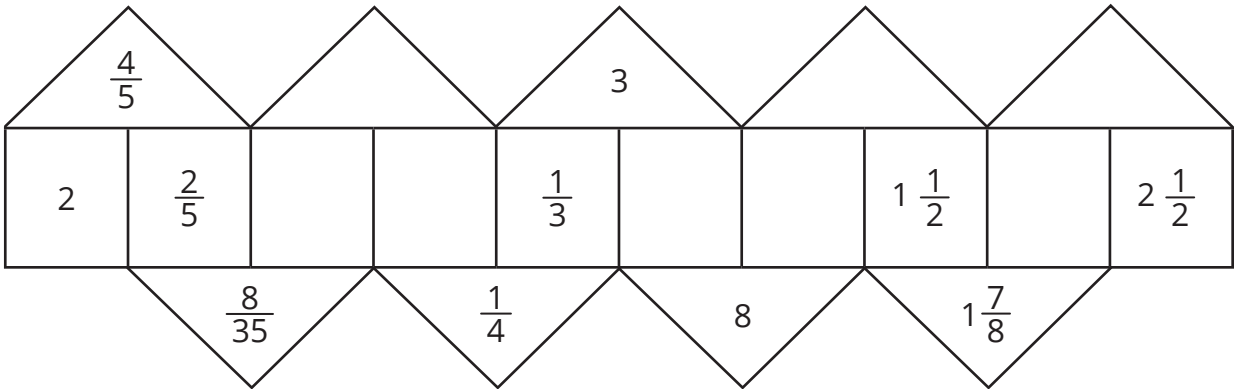
4. Columnar Falls is in Mount Rainier National Park. Another waterfall, Granite Falls, is about $\frac{2}{5}$ as tall as Columnar Falls. How tall is Granite Falls?

Waterfall	Height (miles)
Columnar Falls	$\frac{1}{8}$
Jordan Creek Falls	$\frac{1}{9}$
Roush Creek Falls	$\frac{3}{8}$
Seahpo Peak Falls	$\frac{5}{12}$

5. What is the difference in the heights of the tallest and shortest waterfalls in Ava's table?

6. Deion uses a rectangular shoebox to store his shell collection. The volume of the box is 150 cubic inches, and the area of its base is 50 square inches. How tall is the shoebox?

7. **Challenge:** The number in each triangle is the product of the numbers it touches. Finish the pattern.



Review

Each of these statements is false. Change one of the **bold** numbers to make it true.

1. **0.09** is 10 times as much as **0.9**.
2. **0.005** is $\frac{1}{10}$ as much as **0.5**.
3. The 6 in **792.64** is worth $\frac{1}{10}$ as much as the 6 in **49.968**.
4. The 2 in **2.004** is worth 10 times as much as the 2 in **45.02**.

5. Use a number from the box to complete each statement.

10.43

411.003

4.013

34.1

3.14

44.331

The 4 in 781.045 is worth $\frac{1}{10}$ as much as the 4 in _____.

The 1 in 0.017 is worth 10 times as much as the 1 in _____.

In word form, _____ is three and fourteen hundredths.

In expanded form, _____ is $4 \times 1 + 1 \times \frac{1}{100} + 3 \times \frac{1}{1,000}$.

Circle all of the numbers that make each statement true.

6. $9.08 =$ _____

90.8

9.080

0.908

9.8

7. $59.07 >$ _____

59.4

59.063

59.009

59.05

Name: _____

8. Complete each sentence.

30.466 rounded to the nearest whole number is _____.

0.89 rounded to the nearest tenth is _____.

657.218 rounded to the nearest hundredth is _____.

Valiant Vehicles reports the weights of its vehicles to its customers. The table shows the weights of four of its most popular models.

Vehicle	Weight (tons)
Pixie	1.35
Big Haul	2.72
Prime H6	2.525
Drifter	1.6

9. Which vehicle is the heaviest? _____**10.** Which vehicle is the lightest? _____**11.** Round the Drifter's weight to the nearest whole number. _____**12.** Round the Prime H6's weight to the nearest hundredth. _____**13.** Write the Big Haul's weight in expanded form and word form.

Expanded form: _____

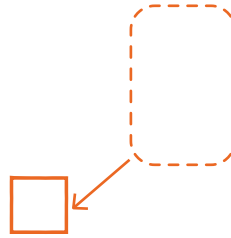
Word form: _____

Model decimal addition

Use a place value sketch to add.

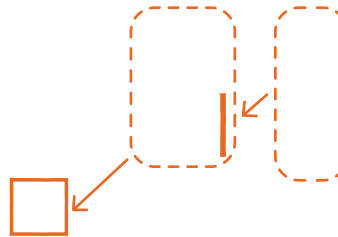
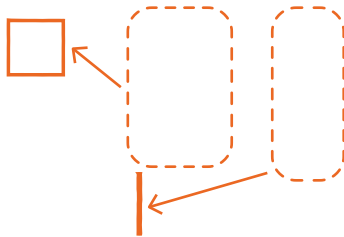
1. $2.26 + 0.31 =$ _____

2. $1.4 + 1.72 =$ _____



3. $0.45 + 0.68 =$ _____

4. $2.04 + 0.98 =$ _____



5. A chef bought 1.45 pounds of white onions and 2.25 pounds of red onions. How many pounds of onions did the chef buy in all?

6. Chen spent \$1.39 on a paintbrush, \$0.70 on red paint, and \$2.23 on glitter from a craft store. How much did Chen spend at the craft store?

Name: _____

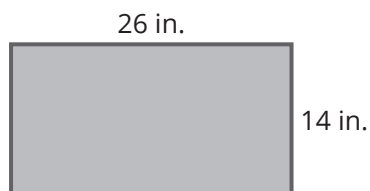
7. Write $<$ or $>$ to compare the expressions in each pair.

$$(5 \times 3) + 2 \times 10 \quad \bigcirc \quad 5 \times (3 + 2) \times 10 \qquad 4 + 12 \div (2 \times 3) \quad \bigcirc \quad (4 + 12) \div 2 \times 3$$

8. Complete the number pattern. The rule is to multiply by 3.

1, 3, _____, _____, _____, 243

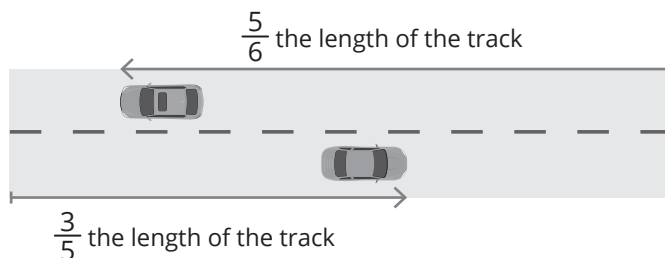
9. Find the area of the rectangle.



10. Find the area of the square.



11. **Challenge:** Two remote-controlled cars start at opposite ends of a track. One person drives their car $\frac{5}{6}$ of the length of the track and stops. The other person drives their car $\frac{3}{5}$ of the length of the track toward the first car. What fraction of the track separates the front ends of the two cars?

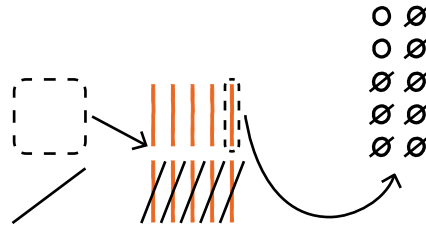


Model decimal subtraction

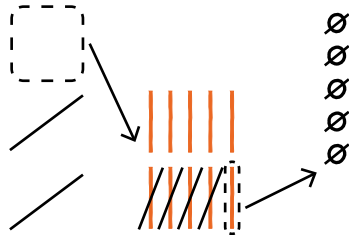
Use a place value sketch to subtract.

1. $2.38 - 1.35 =$ _____

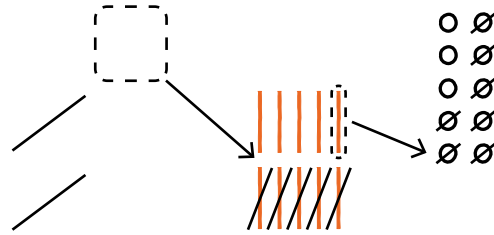
2. $3.36 - 1.58 =$ _____



3. $3.1 - 2.45 =$ _____



4. $4.54 - 2.57 =$ _____

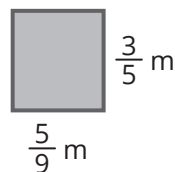
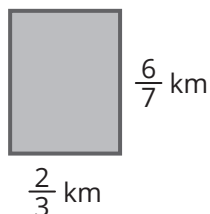


5. Malik bought 3.25 ounces of chocolate. He got 1.8 ounces of milk chocolate and the rest was dark chocolate. How much dark chocolate did Malik buy?

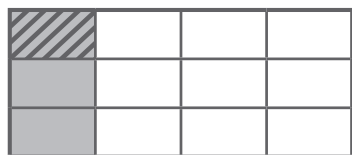
6. Matt bought a large bouncy ball that cost \$2.50. His little sister bought a smaller bouncy ball that cost \$1.95. How much more did Matt pay?

Name: _____

7. Find the area of each rectangle.



8. Write a division equation for the model.



$$\frac{\boxed{}}{\boxed{}} \div 3 = \frac{\boxed{}}{\boxed{}}$$

9. The town of Berrybrush is installing an outdoor ice-skating rink. The rink will fill a rectangular space with an area of 9,600 square feet. The space will be 80 feet wide. How long will it be?

10. **Challenge:** Two rabbits are hopping down a garden path. There are 36 stones on the path. The first rabbit lands on every other stone. The second rabbit lands on every third stone. Which stones do both rabbits land on?

Another rabbit hops down the garden path. It lands on every fourth stone. Which stones do all three rabbits land on?



Add decimals

Add. Estimate to check whether each answer is reasonable.

1.
$$\begin{array}{r} 34.15 \\ + 7.86 \\ \hline \end{array}$$

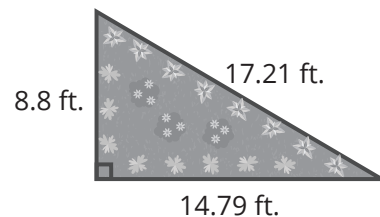
Estimate: _____

2.
$$\begin{array}{r} 51.62 \\ + 27.94 \\ \hline \end{array}$$

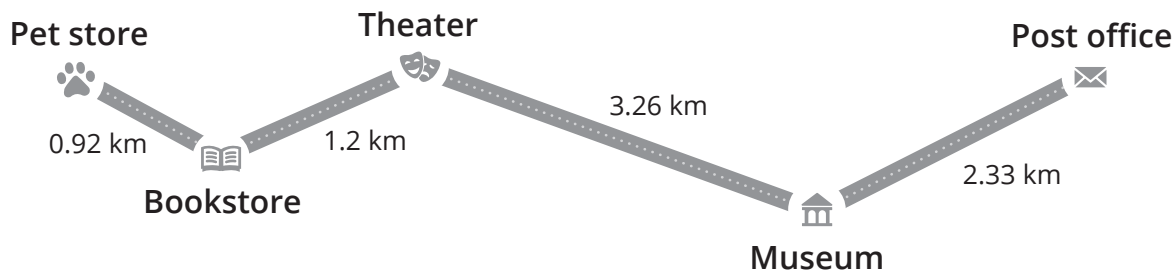
Estimate: _____

3. Max went to a used toy sale last weekend. He spent \$4.10 on a rocket ship, \$7.45 on a baseball bat, and \$0.68 on a baseball. How much did Max spend in all?

4. Ruben wants to add a fence around his garden. How many feet of fencing will Ruben need to buy?



5. Using the paths shown, how far is it from the bookstore to the post office?



Name: _____

Divide.

6. $\frac{1}{5} \div 4 =$ _____

7. $6 \div \frac{1}{3} =$ _____

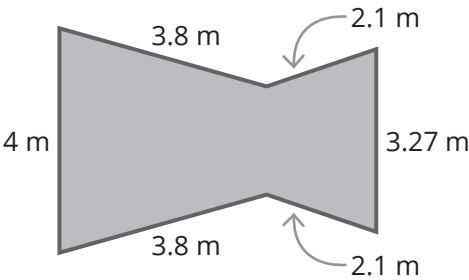
8. Complete the number pattern. The rule is to multiply by $\frac{1}{2}$.

$\frac{3}{4}, \frac{3}{8}, \frac{3}{16},$ _____ , _____

9. Draw a line through the row, column, or diagonal where all of the expressions have the same value.

$(2 + 3) \times 8 - 6$	$2 + (3 \times 8) - 6$	$2 + 3 \times (8 - 6)$
$9 + (12 \div 3) + 1$	$(9 + 12) \div 3 + 1$	$9 + 12 \div (3 + 1)$
$16 - 2 \times (3 + 1)$	$(16 - 2) \times 3 + 1$	$16 - (2 \times 3) + 1$

10. Challenge: Find the perimeter of the hexagon.



Subtract decimals

Subtract. Estimate to check whether each answer is reasonable.

$$\begin{array}{r} 1. \quad 14.58 \\ - \quad 3.12 \\ \hline \end{array}$$

Estimate: _____

$$\begin{array}{r} 2. \quad 72.8 \\ - 12.65 \\ \hline \end{array}$$

Estimate: _____

$$3. \quad 3.51 - 0.53 = \underline{\hspace{2cm}}$$

$$4. \quad 84.16 - 33.49 = \underline{\hspace{2cm}}$$

Estimate: _____

Estimate: _____

5. In 1960, the world record for the high jump was 2.18 meters. In 1989, the world record was 2.44 meters. How much higher was the record in 1989 than in 1960?

6. Marianna wants to buy a new tennis racket that costs \$49.95. So far, she's saved \$36.75. How much more money does she need to save?

7. The starting number for a pattern is 14.1. The rule is to subtract 2.54. Find the next two numbers in the pattern.

14.1, _____, _____

Name: _____

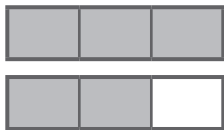
8. Maya measured some rectangular paintings and started this table. Help Maya complete her table.

Length (inches)	Width (inches)	Area (square inches)
36	24	
18		324
	11	792

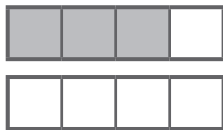
9. Ivan tried to write a number pattern. The rule is to subtract $\frac{3}{4}$. Find and fix the mistakes in Ivan's pattern.

$5\frac{1}{2}, 4\frac{3}{4}, 4, 3\frac{3}{4}, 3$

10. Match each model with the equation it represents. More than one model matches each equation. Then find the missing products.



•



•



•



•

$2 \times \frac{3}{8} = \underline{\hspace{2cm}}$

$2 \times \frac{5}{6} = \underline{\hspace{2cm}}$

11. **Challenge:** A rectangle has a perimeter of 60 units. If the side lengths are all whole numbers, what is the largest area the rectangle could have?



Relate decimal addition and subtraction

Subtract. Use addition to check your answers.

1. $41 - 27.58 =$ _____

2. $18.5 - 1.53 =$ _____

Complete the equations.

3. _____ $+ 30.15 = 62.7$

4. $14.26 -$ _____ $= 6.07$

5. Jessica used a \$20 bill to buy a puzzle that cost \$15.73. She got \$4.27 in change.
Use addition to check whether Jessica got the right amount of change.

Did Jessica get the right amount of change?

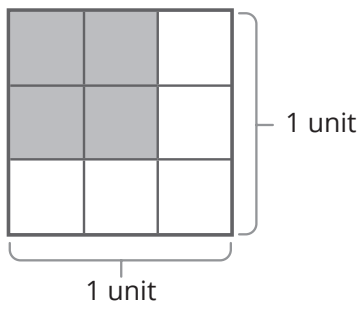
yes

no

Name: _____

6. Lin wrote a number pattern. The first number in the pattern was 24, and the rule was to add 7. Write the first five numbers in Lin's pattern.

7. Write a multiplication equation for the model.



×

=

8. Blake is making waffles for a breakfast buffet. Each waffle uses $\frac{1}{4}$ of a cup of batter.

If Blake has 12 cups of batter, how many waffles can he make?

Blake made 128 waffles for the buffet in all. How many cups of batter did he use?

9. **Challenge:** Add parentheses to each expression so that the difference between their values is 12.

$24 \div 2 \times 4 - 3$

$24 \div 2 \times 4 - 3$



More strategies to add and subtract decimals

1. Which two numbers would you add first to find $3.54 + 15.75 + 1.25$? Why?

2. What is $3.54 + 15.75 + 1.25$? _____

Add or subtract. Use properties or compensation to help.

3. $43.36 - 2.98 =$ _____

4. $9.96 + 13.08 =$ _____

5. $12.1 + 5.5 + 10.9 =$ _____

6. $8.6 + 10.5 + 4.5 =$ _____

7. Brody is interested in Battlesaurs, a trading card game. He wants to buy the base game, a gold booster pack, and a silver booster pack. How much will it cost in all?

Battlesaurs	
Base game	\$42.99
Gold pack	\$10.75
Silver pack	\$8.25

8. Brody's friend Emma wants to play Battlesaurs too. Emma buys the base game and pays for it with a \$50 bill. How much change does she get back?

9. Circle any products that are less than 1. See if you can do it without multiplying.

$3 \times \frac{5}{9}$

$\frac{3}{8} \times \frac{5}{6}$

$2\frac{1}{4} \times 2\frac{1}{4}$

$4 \times 1\frac{2}{3}$

Circle the expression that you could use to solve each problem.

10. Jack bought 2 posters for \$5 each, a yo-yo for \$3, and a T-shirt for \$8. How many dollars did he spend in all?

$(2 \times 5) + 3 + 8$

$2 \times (5 + 3) + 8$

$2 \times (5 + 3 + 8)$

11. Ms. Hunt bought a total of 144 pencils, 24 erasers, and 32 black pens. She split them into 8 supply bins. How many items are in each bin?

$144 + 24 + (32 \div 8)$

$144 + (24 + 32) \div 8$

$(144 + 24 + 32) \div 8$

12. Henry wrote a number pattern. The first number in the pattern is $7\frac{1}{6}$, and the rule is to subtract $\frac{5}{6}$. Fill in the missing numbers.

$7\frac{1}{6}, \underline{\hspace{2cm}}, 5\frac{1}{2}, \underline{\hspace{2cm}}$

13. **Challenge:** Helen, Mateo, Julian, and Stella each have a set of stickers. Each person has exactly one sticker in common with every other person. Draw the set of stickers Stella has.

Helen   

Julian   

Mateo   

Stella



Add and subtract money

Write and evaluate an expression to solve each problem.

1. Ben arrives at the store with his grocery list. If he buys everything on it, how much will he spend?

	<u>Grocery list</u>
	Raspberries - \$2.99
	Eggs - \$4.17
	Almond butter - \$9.81
	Milk - \$5.45

2. If Ben gives the cashier two \$20 bills, how much change will he get back?

3. Adrian got a \$25 gift card for his birthday. He buys a wall-climbing robot for \$23.79 and a pack of extra batteries for \$4.49. How much does Adrian owe after using his gift card?

4. Dani's Daisies sells flower arrangements in 3 sizes. A large arrangement costs \$54.99, a medium arrangement costs \$5.34 less than a large, and a small arrangement costs \$11.45 less than a medium. How much does a small flower arrangement cost?

Name: _____

5. Evaluate each expression. Then find the difference between the two results.

$$6 + 12 \div 2 \times 3$$

$$(6 + 12) \div (2 \times 3)$$

Divide.

6. $\frac{1}{6} \div 3 =$ _____

7. $3 \div \frac{1}{4} =$ _____

8. Dakota has a vegetable garden and a flower garden on her farm.

The vegetable garden is a rectangle 14 feet wide with an area of 238 square feet. How long is the vegetable garden?

The flower garden is a square with 16-foot sides. How many square feet larger is the flower garden than the vegetable garden?

9. **Challenge:** Emily has \$10 to spend on lunch. She wants a sandwich, a drink, and a bag of snacks. What could Emily buy?

How much change will she get?

Menu

Cheese sandwich - \$5.29

Turkey sandwich - \$6.19

Iced tea - \$1.59

Soda - \$2.49

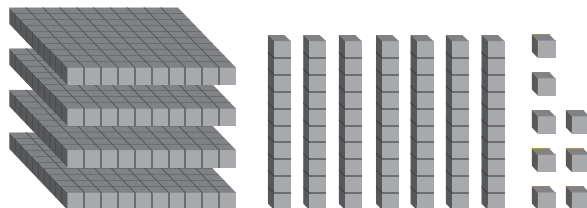
Potato chips - \$1.29

Pretzels - \$1.39



Review

1. The blocks show 4.78.



Use the blocks to find $4.78 - 2.85$. Explain how you got your answer.

2. Sebastian used the standard algorithm to solve two addition problems. Draw a star next to the problem he did correctly. Fix his mistake in the other one.

$$\begin{array}{r} 1 \\ 31.8 \\ + 6.64 \\ \hline 38.44 \end{array}$$

$$\begin{array}{r} 1 \\ 26.73 \\ + 14.72 \\ \hline 40.45 \end{array}$$

3. The starting number for a pattern is 3.4. The rule is to add 0.58. Find the next two numbers in the pattern.

3.4, _____, _____

Name: _____

Add or subtract. Estimate to check whether your answers are reasonable.

$$\begin{array}{r} 4. \quad 7.35 \\ - 3.8 \\ \hline \end{array}$$

Estimate: _____

$$\begin{array}{r} 5. \quad 35.64 \\ + 31.39 \\ \hline \end{array}$$

Estimate: _____

$$6. \quad 60.25 + 2.15 + 9.75 = \underline{\hspace{2cm}}$$

$$7. \quad 34.6 - 9.04 = \underline{\hspace{2cm}}$$

Estimate: _____

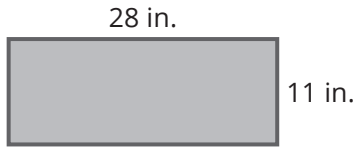
Estimate: _____

8. Kendall is buying a ticket for a basketball game. A ticket for the seat she wants costs \$44.25, but her student discount gives her \$9.75 off any ticket. How much does Kendall pay for the basketball ticket?

9. Dylan went to the pet supply store. He bought a bag of food for \$28.95. He also bought a chew toy. He paid with \$40 in cash and got \$1.84 back in change. How much was the chew toy?

Perimeter of rectangles

1. Find the perimeter of the rectangle.

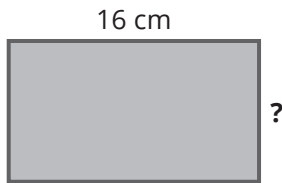


2. Find the perimeter of the square.

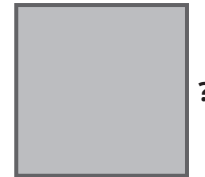


Find the missing side lengths.

3. The perimeter of the rectangle is 50 centimeters.



4. The perimeter of the square is 72 feet.



5. An artist is ordering custom frames for two of his nature paintings. The painting of a mountain is 14 inches by 15 inches. The painting of a river is 16 inches by 11 inches. Which painting has a larger perimeter?

Name: _____

6. Label the fractions. Then draw stars next to the two fractions that are equal.







7. Circle all the multiples of 6. Box all of its factors.

4	2	9	11	12
3	6	18	1	15

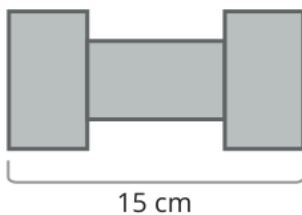
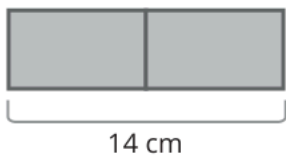
Multiply.

8.
$$\begin{array}{r} 48 \\ \times 17 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 65 \\ \times 32 \\ \hline \end{array}$$

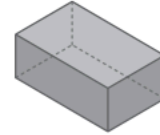
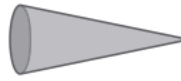
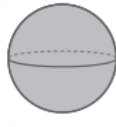
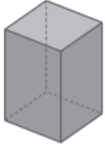
10.
$$\begin{array}{r} 58 \\ \times 26 \\ \hline \end{array}$$

11. **Challenge:** Elliot made these figures by putting together copies of a small rectangle. Find the perimeter of one of the small rectangles.



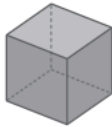
Describe three-dimensional shapes

1. Which shapes have a curved surface?



Count each shape's faces, edges, and vertices.

2.

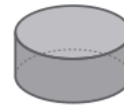


Faces: _____

Edges: _____

Vertices: _____

3.



Faces: _____

Edges: _____

Vertices: _____

4. Mark whether each statement is true or false.

Statement	True	False
A cube has exactly 4 edges.	☐	☒
A rectangular prism has 6 vertices.	☒	☐
A cylinder has no curved surfaces.	☐	☒
A cone has 1 apex.	☒	☐

Complete each sentence with the name of a three-dimensional shape.

5. A _____ has
1 curved edge and 1 circular face.

6. A _____ has 1 curved
surface and no edges or vertices.

Name: _____

Complete each table.

7.

Meters	Kilometers
500	
	2
	3.75
10,000	

8.

Hours	Minutes
$\frac{1}{2}$	
	120
$3\frac{1}{4}$	
	270

9. At science camp, Mona tested different designs for a paddleboat powered by rubber bands. Her first design traveled 2.75 meters. Her second design traveled 3 times as far. How many more meters did the second design travel than the first design?

Write or draw your answer.

Divide.

10. $3 \div \frac{1}{4} =$

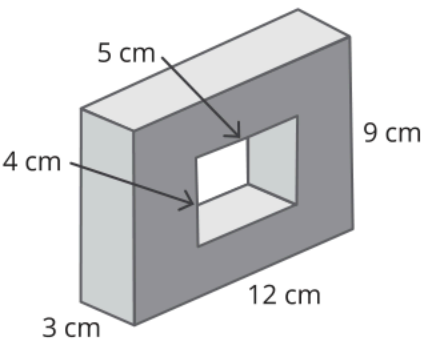
11. $\frac{1}{8} \div 2 =$

12. $\frac{1}{10} \div 10 =$

13. $1 \div \frac{1}{5} =$

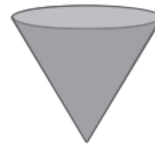
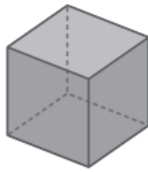
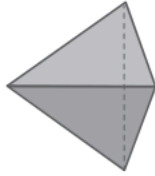
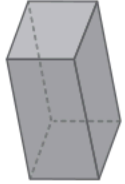
14. **Challenge:** Find the volume.

Write or draw your answer.



Classify three-dimensional shapes

1. Draw lines to sort the shapes into categories.



pyramid

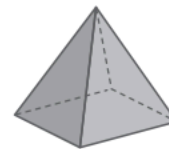
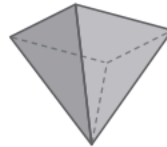
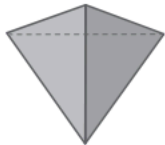
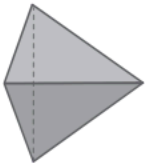
prism

neither

2. Erik sorted some shapes into two groups. What categories could he have used?

Shapes with 4 faces

Shapes with 5 faces



3. Norma is thinking of a mystery shape. She gives these clues:

- Circle the shapes that have at least 1 face.
- Draw a star next to the shapes that have a curved surface.
- Box the shapes that have an apex.

triangular prism

cone

rectangular prism

cube

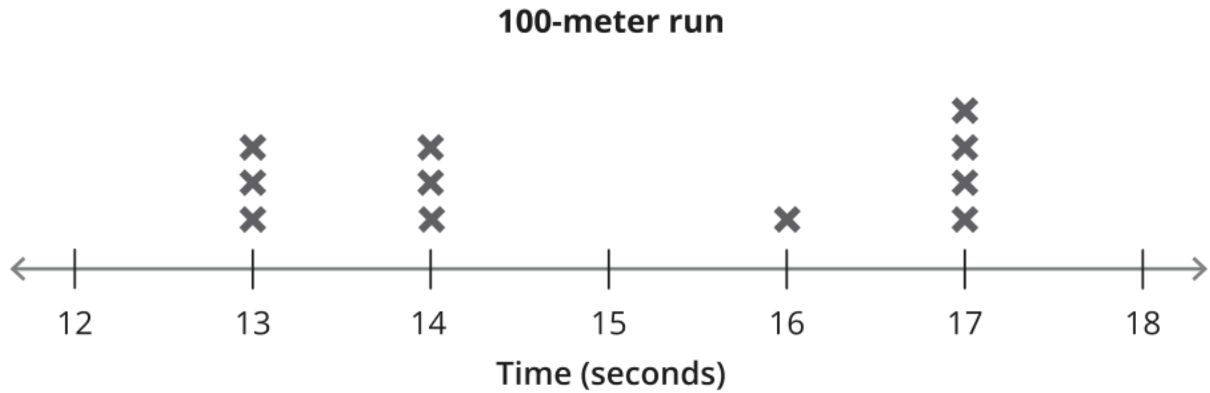
triangular pyramid

sphere

Norma's shape is circled, starred, and boxed. What shape is it? _____

Name: _____

4. The line plot shows the times it took the 11 students in Mr. Huber's class to run 100 meters.



Find the mean and median of the data.

Mean: _____

Median: _____

Cross out the measurement that is not equal to the others.

5. 3 gallons
 6 quarts
 24 pints

6. 100 ounces
 6 pounds 4 ounces
 6.5 pounds

7. **Challenge:** Chapman Street is 450 meters long. There are 21 equally spaced light poles along the street, including one light pole at each end of the street. What is the distance between each light pole?

22.5 meters



Next up: **HJ2** and **HSR**

Add and subtract angle measures

1. Circle all the equations that can be used to find the unknown angle measure, s .
Then solve to find s .

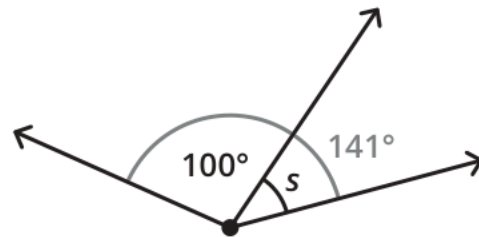
$$100^\circ + s = 141^\circ$$

$$s = 100^\circ + 141^\circ$$

$$s - 141^\circ = 100^\circ$$

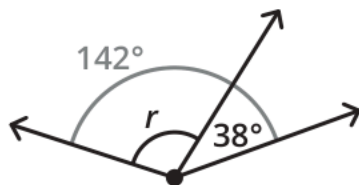
$$s = 141^\circ - 100^\circ$$

$$s = \underline{\hspace{2cm}}$$

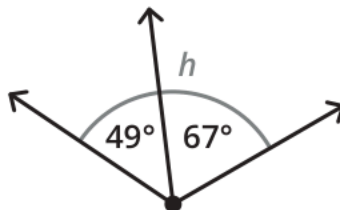


Find each missing angle measure.

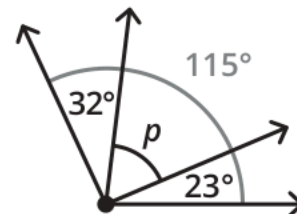
2. $r = \underline{\hspace{2cm}}$



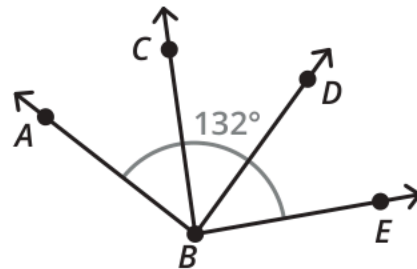
3. $h = \underline{\hspace{2cm}}$



4. $p = \underline{\hspace{2cm}}$



5. The measure of $\angle ABE$ is 132° . $\angle ABC$, $\angle CBD$, and $\angle DBE$ all have the same measure.
Write and solve an equation to find the measure of $\angle ABC$.



Name: _____

6. Tiana is making cinnamon raisin bread for her class picnic. The recipe for one loaf of bread calls for $1\frac{1}{3}$ cups of raisins. To have enough for everyone, she plans to make 4 loaves. How many cups of raisins should Tiana use?

7. Shade the shapes with at least one right angle. Circle the shapes with at least one pair of parallel sides.



8. Every Saturday, Ezra takes a class at the Park Street Arts Center beginning at 11:00 a.m. The class spends 30 minutes drawing and 45 minutes painting. When does the class end?

9. **Challenge:** ☆ and ♥ are both mixed numbers. What is their sum?

$$2\frac{1}{5} + ☆ = 6\frac{4}{5}$$

$$3\frac{4}{5} + ☆ = ♥$$

$$☆ + ♥ = \underline{\hspace{2cm}}$$



The coordinate plane

1. Plot the points on the coordinate plane.

$A(1, 5)$

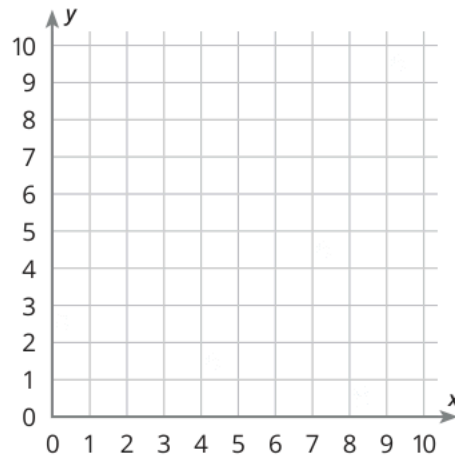
$D(0, 2)$

$B(8, 0)$

$E(9, 9)$

$C(7, 4)$

$F(4, 1)$



2. Does $(4, 9)$ describe the same point as $(9, 4)$? Why or why not?

Yes or no? Explain.

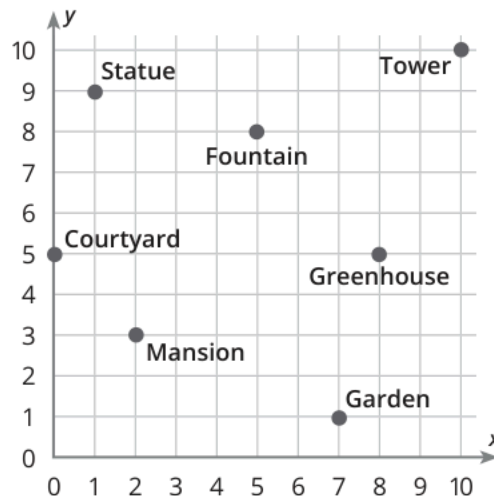
3. Nicole is playing Castle Mystery with her friends. She must go to different locations on the map to find a secret hideout. Write the coordinates of each location.

Garden: _____

Fountain: _____

Tower: _____

Courtyard: _____



Name: _____

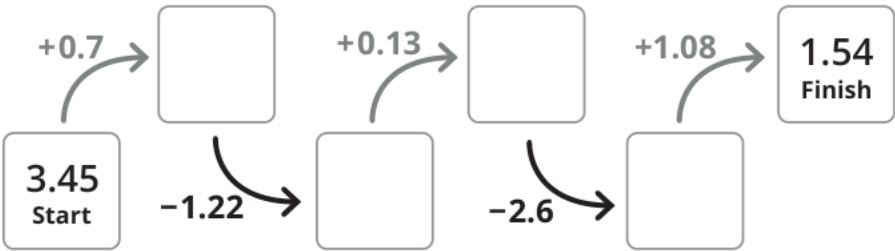
4. Circle the two expressions that have the same value.

$3 \times (21 - 19 + 2)$

$30 - (12 - 6)$

$44 \div (4 + 18) \times 6$

5. Add and subtract along the path. If your math is correct, your final answer will match the last number shown.



6. Complete the tables.

Round 18.374 to the nearest...	
Hundredth	
Tenth	
Whole number	

Round 95.726 to the nearest...	
Hundredth	
Tenth	
Whole number	96

7. **Challenge:** Use the decimals in the box to find two ways to make 8.47. You can use addition, subtraction, or both.

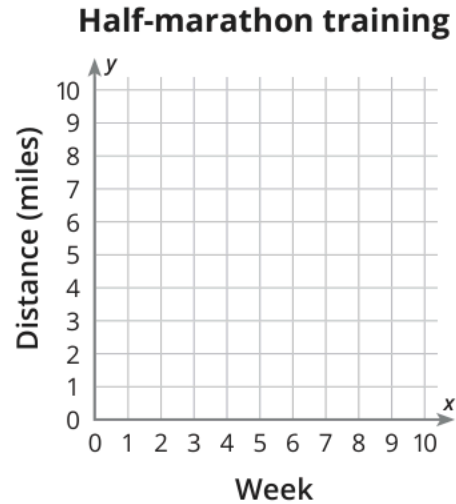
2.08	3.46	6.39	4.6	1.79	7.33
------	------	------	-----	------	------



Graph data from tables

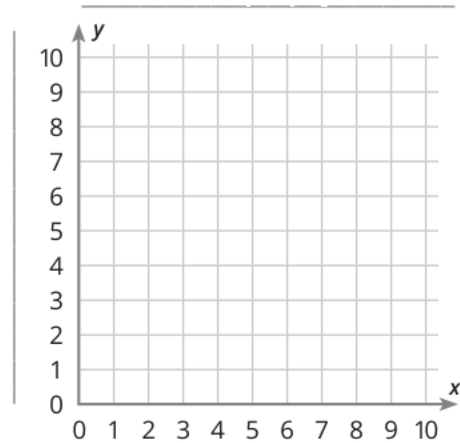
1. Toby is training for a half-marathon. The table shows how much he runs during the first few weeks of his training. Graph the data.

Week	Distance (miles)
1	5
2	6
3	7
4	8
5	9



2. Vera is going to Arcade Zone after school. The table shows how many games she can play based on the number of tokens she has. Make a graph to show the data.

Number of tokens	2	4	6	8
Number of games	1	2	3	4



3. Vera has 6 tokens in her pocket. How many games can she play?
4. She plays 2 games of pinball. How many tokens does she use?

5. Plot the point (10, 5) on the graph. What does it represent?

Name: _____

Multiply or divide.

6. $0.418 \times 10^2 =$ _____

7. $3,750 \div 10^3 =$ _____

8. $86.3 \div 10^2 =$ _____

9. $9.204 \times 10^4 =$ _____

10. Circle the sums or differences that round to 4.7.

$9.07 - 4.3$

$1.76 + 2.9$

$5.1 - 0.38$

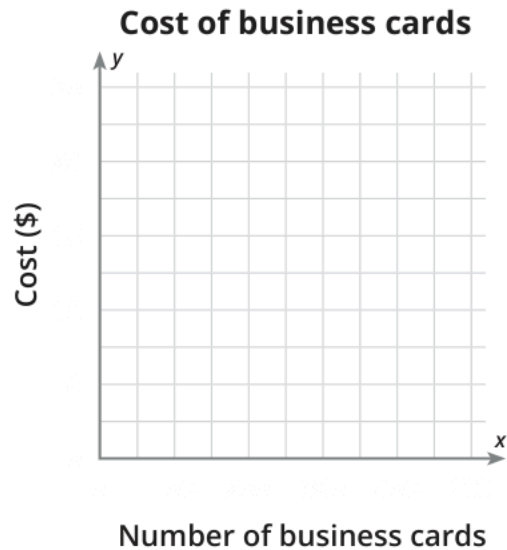
11. A standard basketball rim is 45.72 centimeters wide at its widest point and 3.05 meters off the ground. Write each number in word form.

12. **Challenge:** Connor says that he can tell $10 \div 5 + 3 + 4 \times 5$ and $(10 \div 5 + 3) + (4 \times 5)$ have the same value without evaluating them. Explain how.

Scaled graphs

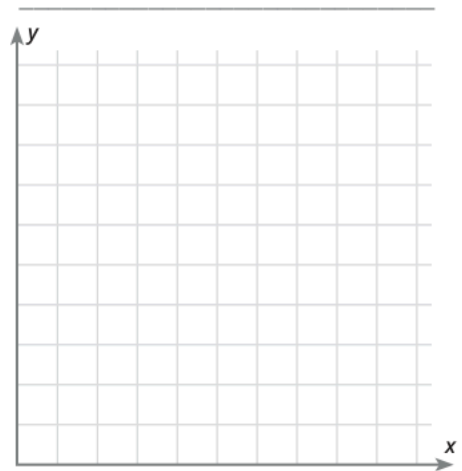
1. Wayne wants to order business cards for his dog-walking business. The table shows how much it costs to order different numbers of business cards. Graph the data.

Number of business cards	50	100	250	500
Cost (\$)	12	18	21	24



2. Isabelle went on a hike last week with her family. Every half hour, she recorded the total distance they had hiked. Graph the data.

Time (hours)	$\frac{1}{2}$	1	$1\frac{1}{2}$	2
Total distance (miles)	1	2	$2\frac{1}{2}$	$3\frac{1}{2}$



3. How far had they hiked after $1\frac{1}{2}$ hours?
4. Between which two times did they hike the shortest distance?

5. What would the point (3, 5) represent if it were part of the graph?
- _____
- _____

Name: _____

6. Circle all of the numbers that are greater than $7 \times 1 + 4 \times \frac{1}{10} + 6 \times \frac{1}{1,000}$.

7.406 7.046 7.46

Add parentheses to make each equation true.

7. $9 + 15 \div 8 - 3 = 12$ 8. $4 \times 2 \times 3 + 5 = 44$

9. Find a path by shading spaces with values greater than 5. No diagonal moves are allowed.

Start	$34.8 \div 100$	$0.032 \div 0.01$	11.3×0.1	$8.67 \div 100$
$0.83 \cdot 100$	7.5×0.1	0.04×100	$0.027 \div 0.01$	9.01×0.1
94.6×0.1	0.28×10	$1.24 \div 10$	$642.3 \cdot 0.01$	$6.2 \div 0.01$
$65.3 \div 10$	$812.5 \div 100$	$0.71 \div 0.1$	37.9×0.01	0.18×100
$0.43 \div 0.1$	$99.9 \div 100$	$4.8 \div 10$	0.026×10	Finish

10. **Challenge:** Dominic used the numbers 1, 2, 6, and 7 to make 24.

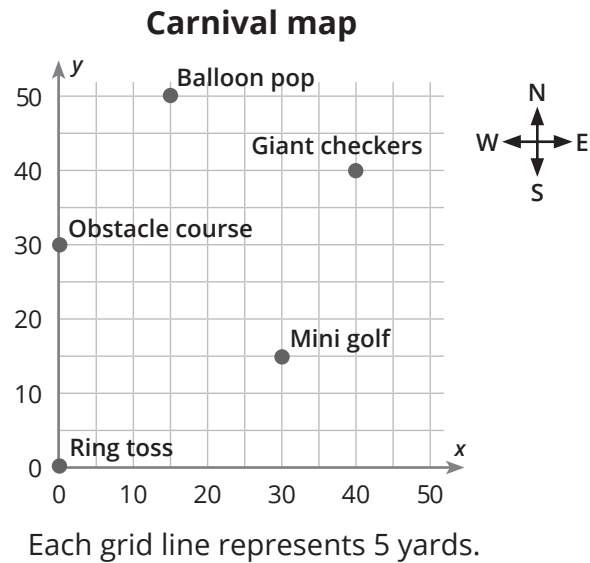
$6 \times (7 - 2 - 1) = 24$

Show two ways to make 24 using the numbers 2, 3, 4, and 7.

Solve problems using the coordinate plane

Caden is in charge of planning the end-of-year carnival at York Middle School. He makes a map showing where the activities will go.

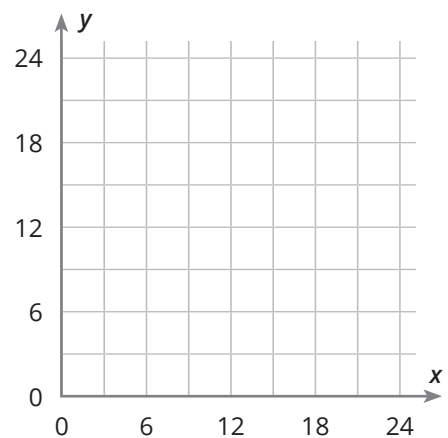
1. Which activity is located at the origin?
2. What are the coordinates of the balloon pop activity?
3. Which activity is 30 yards north of the ring toss?
4. Caden wants to put a photo booth 15 yards from the mini golf course. Write a possible set of coordinates for the photo booth.



5. Brittany is trying to draw a rectangle. She starts with vertices at $(3, 6)$, $(18, 6)$, and $(18, 15)$.

Plot Brittany's points. Then plot another point to make a rectangle and write its coordinates below.

6. Brittany says that if she plots one more point, she can make a hexagon. Do you agree with her? Explain.



Name: _____

Fill in the missing exponents.

7. $73.4 \div 10^{\square} = 0.734$

8. $0.291 \times 10^{\square} = 291$

9. $5.08 \times 10^{\square} = 50,800$

10. $162 \div 10^{\square} = 0.162$

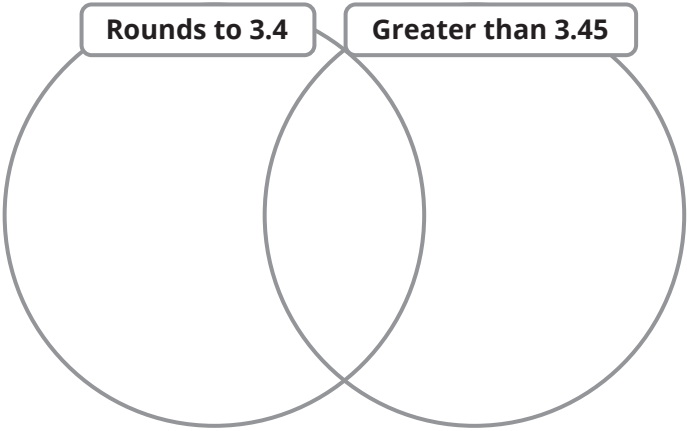
Evaluate the expressions.

11. $\left(\frac{2}{3} + \frac{1}{6}\right) \times 1\frac{3}{4}$

12. $\frac{1}{2} \div 3 - \left(\frac{1}{2} - \frac{3}{8}\right)$

13. Round each number to the nearest tenth. Then sort the numbers in the Venn diagram. Cross out any numbers that don't belong in either circle.

3.38	3.41
3.426	3.315
3.54	3.374
3.45	3.47



14. **Challenge:** Malia says that you would never put a number in the middle section of the Venn diagram. Do you agree? Why or why not?



Create and compare patterns

1. Complete the table and the rule.

Pattern A: <i>multiply by 2</i>	2			
Pattern B: <i>multiply by 2</i>	8			

Each term in pattern B is _____ the corresponding term in pattern A.

2. Sandra and her friends play volleyball after school. To find the number of teams they can make, they take the number of people and divide by 3. Complete the table.

Number of people	9	12	15	18	21
Number of teams					

3. On Friday, 27 people show up to play volleyball. How many teams can they form?

4. Kenneth wants to buy a new snowboard. He starts with some money in his bank account and saves the same amount each week. The table shows how much money is in his bank account at the end of each week.

Number of weeks	1	2	3	4
Total amount saved (\$)	35	55	75	95

Which statement is true?

- ☐ You can find the total amount saved by multiplying the number of weeks by 50 and then subtracting 15.
- ☐ You can find the total amount saved by multiplying the number of weeks by 20 and then adding 15.

- 5.** Circle all the numbers equal to $3 \times 10 + 8 \times \frac{1}{10} + 6 \times \frac{1}{100}$.

30.860

thirty-eight and
six hundredths

6. In the pyramids, each number is the sum of the two numbers below it. Fill in the missing numbers.



7. Circle the numbers that round to 2.5 when rounded to the nearest tenth. Draw a box around the numbers that round to 2 when rounded to the nearest whole.

2.16

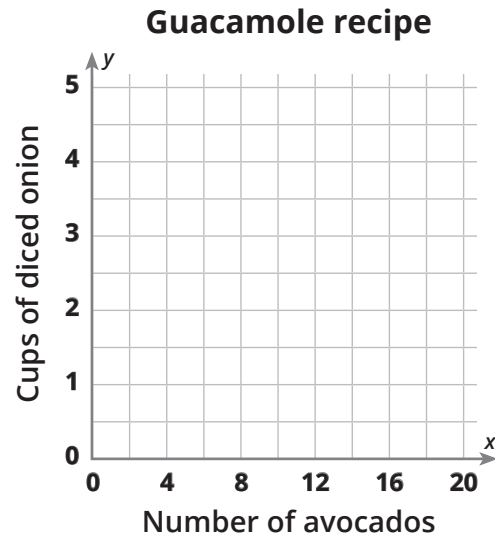
- 8. Challenge:** Paula wrote a number pattern. She added the same decimal number to get from one number to the next. Find the missing numbers in her pattern.

2.16, _____, _____, 9.99

Patterns, tables, and graphs

1. Avery wants to make guacamole for a cookout. One batch of her recipe calls for 4 avocados and $\frac{1}{2}$ of a cup of diced onion. Complete the table and graph the data.

Number of batches	Number of avocados	Cups of diced onion
1		
2		
3		
4		



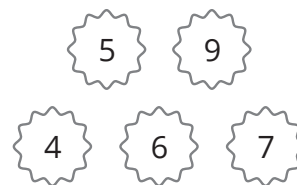
2. What rule can you use to find the number of cups of onion for any number of avocados?
3. How many cups of onion would Avery need for 12 avocados?
4. How many avocados would Avery need for 2 cups of onion?
5. Avery makes one batch of guacamole with tomatoes and another batch without. She uses 8 avocados for the first batch and 12 for the second. How many cups of onion does she use in all?

Name: _____

6. Jasper has a \$25 gift card to the Park Street Bookstore. He buys a hardcover book for \$16.95 and a paperback book for \$4.45. Jasper also buys a bookmark. After making his purchases, he has \$0.95 left on his gift card.

Write and evaluate an expression to find how much the bookmark cost.

7. Use these digits to make a decimal number. It should round to 47 when you round it to the nearest whole number. Then write the number in expanded form and word form.



Number: _____

Expanded form: _____

Word form: _____

8. Match the expressions with the same value.

$0.6 \times 1,000$

60

60×0.01

$6,000 \div 100$

6×10^2

6×0.01

$0.006 \div 0.01$

$0.6 \div 10$

9. **Challenge:** How many whole numbers follow these rules?

- Each digit is an odd number.
- If you add up the digits, the sum is 7.

Hint: One number that follows the rules is 115 because the digits are 1, 1, and 5, which are odd and add up to 7.



Review

Name: _____

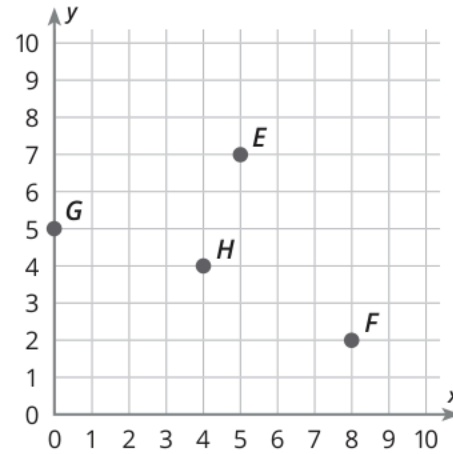
1. Find the coordinates of each point.

Point E: _____

Point F: _____

Point G: _____

Point H: _____



2. Now plot these points on the coordinate plane.

A(1, 9)

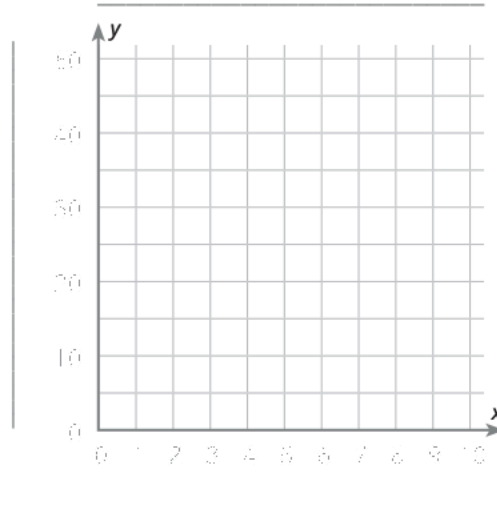
B(3, 0)

C(10, 6)

D(7, 5)

3. Dylan keeps track of how long he practices the violin. Make a graph to show the data.

Day	Practice time (minutes)
1	15
2	10
3	25
4	20
5	30



4. Which day did Dylan practice the least? Which day did he practice the most?

Name: _____

5. Use the rules to find the missing numbers. Then complete the sentences.

Pattern A: <i>subtract 4</i>	32			
Pattern B: <i>subtract 4</i>	27			

Each term in pattern B is _____ the corresponding term in pattern A.

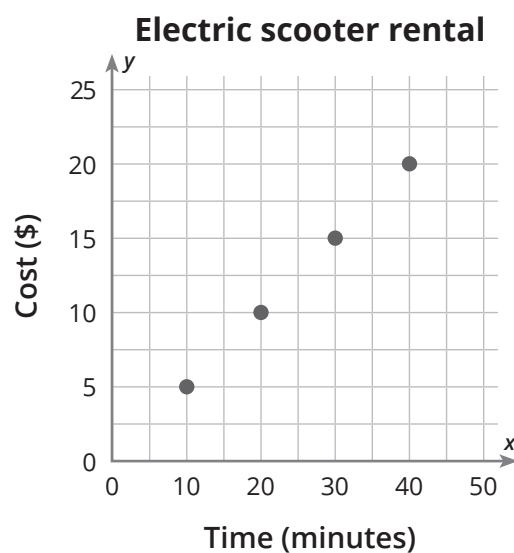
When the term in pattern B is 7, the term in pattern A is _____.

Alexa plans to rent electric scooters while exploring Chicago. The graph shows how much it costs to rent a scooter.

6. Complete the sentence.

To find the cost, take the time in minutes and _____.

7. Alexa's first ride costs her \$5.00.
How long did she use the scooter?



8. Alexa rents a scooter for 10 minutes to get to a museum. Later, she rents a scooter for 20 minutes so she can meet her friend for lunch. What is the total cost of the two trips?
9. What would the point (0, 0) represent on Alexa's graph?

Classify polygons

Decide whether each polygon is regular or irregular. Then use the number of sides to finish classifying it.

1.



regular

irregular

2.



regular

irregular

3.



regular

irregular

4.



regular

irregular

5. Match the polygons with the descriptions. Some will have more than one match.



regular polygon

octagon

pentagon

has at least one right angle

Name: _____

Evaluate each expression.

6. $\frac{1}{9} \div (17 - 13)$

7. $8 \times \left(6 \div \frac{1}{5}\right)$

8. When Reid got his puppy, Piper, a month ago, she weighed 5.75 pounds. So far, she has gained 4.5 pounds. How much does Piper weigh now?

9. A meteorologist tracked how much rain fell on rainy days last month. Use his data to create a line plot.

How many days had more than $\frac{3}{4}$ of an inch of rain?

Rainfall (inches)						
$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{3}{8}$	1	$\frac{3}{4}$
$\frac{5}{8}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{7}{8}$	1	$\frac{3}{4}$	$\frac{7}{8}$

What is the difference between the greatest and least amounts of rain?

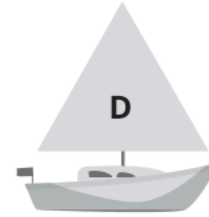
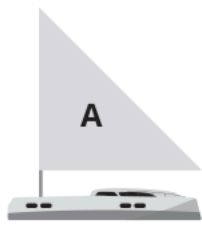


10. **Challenge:** How many ways can you color 3 of the boxes so that none of the boxes you colored are next to each other?

--	--	--	--	--	--	--

Classify triangles

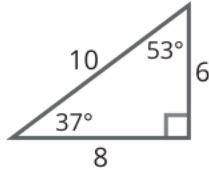
1. Classify each triangular sail using its angles and sides.



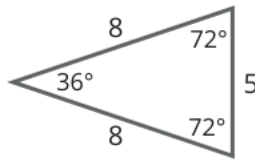
	Sail A	Sail B	Sail C	Sail D
Angles	Right	Isosceles	Equilateral	Isosceles
Sides	Right	Isosceles	Equilateral	Isosceles

Classify each triangle using its angles and sides.

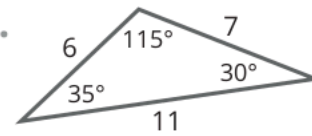
2.



3.

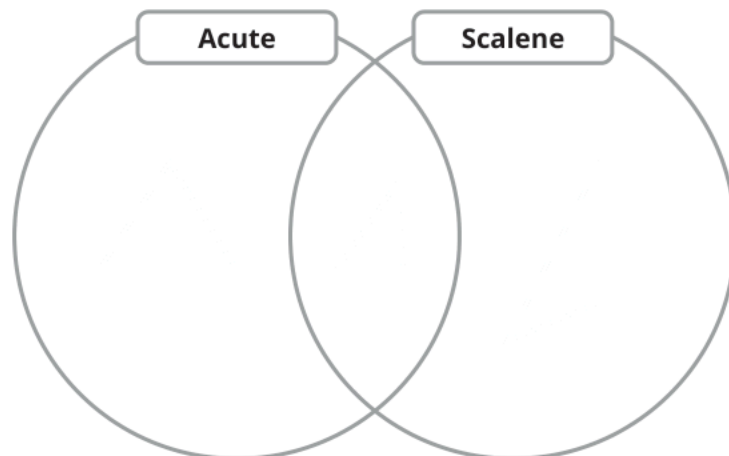


4.



5. Draw one triangle in each section of the Venn diagram.

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Name: _____

Convert the measurements to complete each table.

6.

Feet	Yards
6	
	$4\frac{2}{3}$
	10
70	

7.

Pounds	Ounces
	80
$6\frac{1}{4}$	
11	
	208

8. Sadie put a large storage bin on her closet floor. Then she stacked 6 small bins on top of it. Each small bin is 16.45 centimeters tall. The large bin is 33.8 centimeters tall. How many meters tall is the entire stack of bins?

9. Circle all the expressions that are equal to $\frac{1}{12}$.

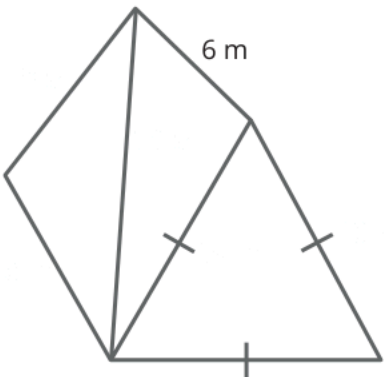
$\frac{1}{3} \div 4$

$36 \div \frac{1}{3}$

$\frac{1}{24} \div 2$

$\frac{1}{6} \div 2$

10. **Challenge:** Manuel put together three triangles to make this picture. Each triangle has a perimeter of 30 meters, and only one triangle is scalene. Find all of the missing side lengths.



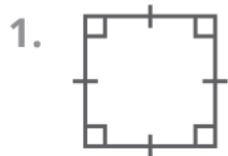
Classify quadrilaterals

Classify each polygon. Use each word once.

quadrilateral
rectangle

trapezoid
rhombus

parallelogram
square



square



trapezoid



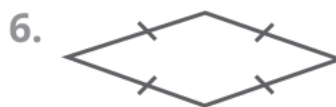
parallelogram



rectangle



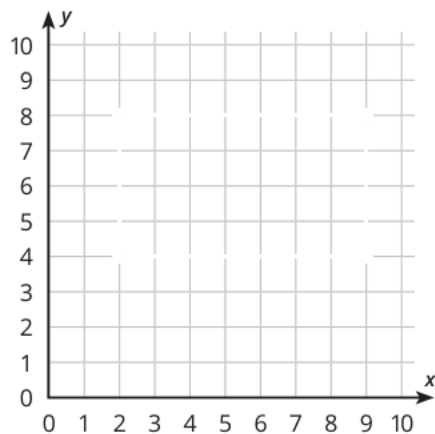
quadrilateral



rhombus

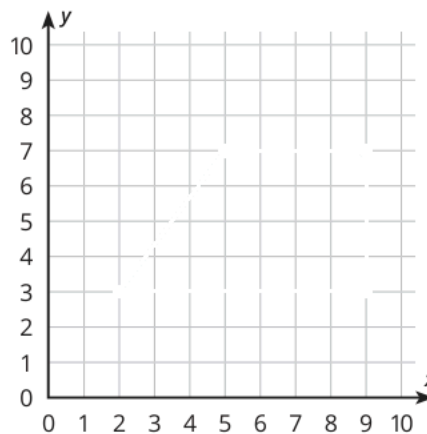
Graph the quadrilateral with the given vertices. Then classify it.

7. (2, 4), (2, 8), (9, 8), (9, 4)



quadrilateral

8. (2, 3), (5, 7), (9, 7), (9, 3)



trapezoid

Name: _____

9. Match the expressions that have the same value.

$4 \div \frac{1}{3}$

$\frac{1}{6} \div 3$

$\frac{1}{2} \div 8$

$6 \div \frac{1}{4}$

$\frac{1}{9} \div 2$

$8 \div \frac{1}{3}$

$2 \div \frac{1}{6}$

$\frac{1}{4} \div 4$

10. Eli bought 3 books and a bookmark. All the books were the same price, and the bookmark was \$2.25. If he spent a total of \$22.50, how much did each book cost?

Circle the largest measurement. Draw a box around the smallest.

11.

25 yards

720 inches

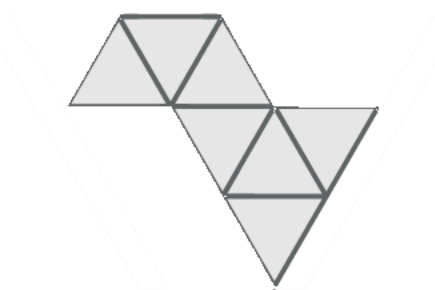
90 feet
12.

22 pints

3 gallons

16 quarts

13. **Challenge:** Elena is making a trapezoid out of tiles shaped like equilateral triangles. She already put down the tiles shown in the diagram. What is the smallest number of tiles she needs to add to create a trapezoid?



Relationships between quadrilaterals

Circle all the terms that describe each shape. Star the most specific one.

1.



quadrilateral

rectangle

parallelogram

rhombus

trapezoid

square

2.



quadrilateral

rectangle

parallelogram

rhombus

trapezoid

square

3. Match each shape to the phrase that describes it.

parallelogram

quadrilateral

rhombus

square

trapezoid

always a rectangle

sometimes a rectangle

never a rectangle

Decide whether each statement is true or false. Write or draw to show why.

4. Squares are always quadrilaterals.

5. Rhombuses are never squares.

Name: _____

6.

Bobby is planting flowers. He divides $\frac{1}{2}$ of a cubic foot of soil evenly among 4 pots. How much soil does he put in each pot?
7.

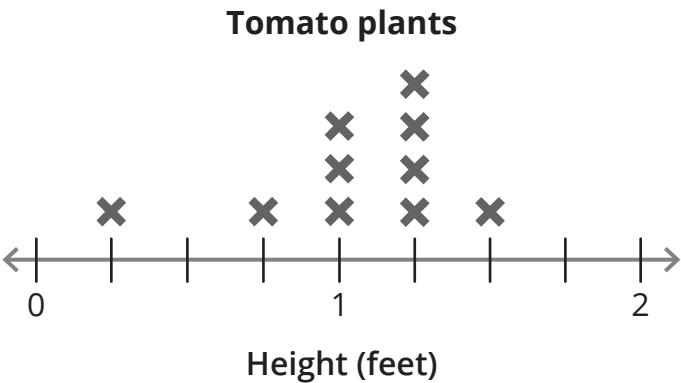
Each week, Bobby feeds his flowers $\frac{1}{3}$ of a cup of plant food. How many weeks will a 2-cup bottle last?

8.

Bobby planted some tomato plants, too. After a few weeks, he measured the height of each plant and made a line plot with his data.

What is the most common height in inches?

How much taller is his tallest plant than his shortest plant?



9. **Challenge:**

Bobby wants to plant basil, dill, oregano, and parsley in his herb garden. He has space for 12 plants, and he wants his garden to meet these requirements:

- There should be more oregano than parsley.
- There should be less dill than any other herb.
- There should be twice as much basil as oregano.

O	B	D	B
O	B	B	B
O	B	P	P

Help Bobby design his garden. Mark each spot with the first letter of the herb he should plant there.

Review

Decide whether each polygon is regular or irregular. Then use the number of sides to finish classifying it.

1.



regular

irregular

2.

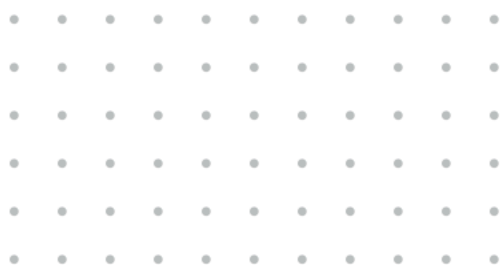


regular

irregular

Draw a picture to match each description.

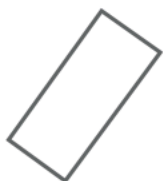
3. A trapezoid with at least one pair of perpendicular sides



4. A scalene triangle with exactly two acute angles



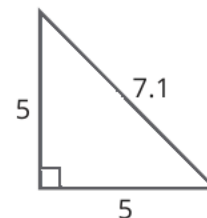
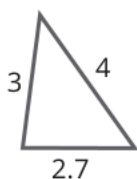
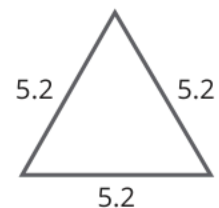
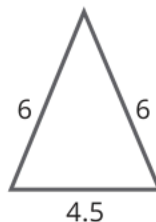
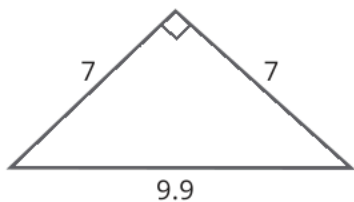
5. Draw lines to show whether each shape is a rectangle.



is a rectangle

is not a rectangle

Name: _____

6. Shade all of the right, isosceles triangles.

Decide whether each statement is true or false. Write or draw to show why.

7. Octagons are sometimes regular polygons.**8.** Equilateral triangles are never isosceles triangles.**9.** Some trapezoids are squares.**10.** Quadrilaterals are sometimes rectangles.**11.** Rhombuses are never parallelograms.**12.** All parallelograms are rhombuses.

0.1 or 0.01 more or less

Use the place value sketch to answer each question.

1. What is one hundredth more than 3.42?

Ones	Tenths	Hundredths
□ □ □		○○

2. What is one tenth less than 2.97?

Ones	Tenths	Hundredths
□ □	 	○○○ ○○○ ○

Determine whether each statement is true or false. If it is false, change the **bold** number to make it true.

3. 0.1 more than 7.6 is **7.7**.

True or False? _____

4. 0.01 less than 0.35 is **0.25**.

True or False? _____

5. 0.1 less than 9 is **9.1**.

True or False? _____

6. 0.1 more than 8.8 is **8.81**.

True or False? _____

7. 0.01 more than 6.99 is **7**.

True or False? _____

8. 0.01 less than 1.33 is **1.31**.

True or False? _____

9. In a car race, Lewis drove the fastest lap. It took 62.94 seconds. The second fastest driver, Val, took one hundredth of a second more to drive the same lap. How long did Val take to drive the lap?

Write your answer.

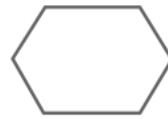
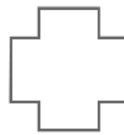
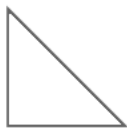
Name: _____

- 10.** Jumbo, Mondo, and Stomper are three African elephants at the Ocean City Zoo. A sign next to their exhibit says Jumbo weighs 11,603 pounds and Stomper weighs 11,589 pounds. Mondo weighs more than Stomper and less than Jumbo.

What could Mondo's weight be?

Write the number in the box.

- 11.** Shade each shape that has at least one pair of perpendicular sides.



- 12.** Lena won 125 tickets playing arcade games. She wants to use her tickets to get as many baseball cards as she can. Each baseball card costs 8 tickets.

Complete the sentences.

Lena can get _____ cards and will have _____ tickets left over.

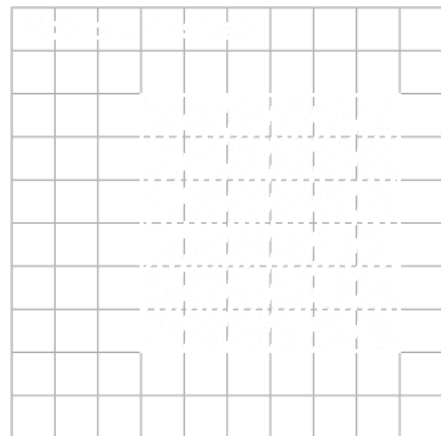
That's _____ half of what she needs for another card.

less than
more than

- 13. Challenge:** Eli drew this rectangle.



Use the grid to draw a rectangle with the same perimeter but a larger area. Can you find the largest possible area?



Equations with unknown numbers

1. There are 4 teachers, some parent helpers, and 84 students attending a field trip. If there are 96 people attending the field trip in all, how many parent helpers are there?

Complete the strip model and write an equation to find p , the number of parent helpers.

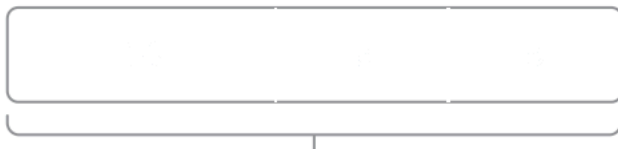


Equation: _____

There are _____ parent helpers.

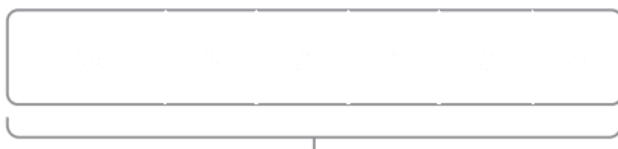
Complete the strip model and write an equation to match. Then solve.

2. Edward paid for 2 candles with \$40 and got \$14 in change. Each candle cost the same amount. How much did each candle cost?



$$2x + 14 = 40$$

3. Mona attaches 5 beads in a row to a metal clip to make a key chain. The metal clip is 35 millimeters long. If the key chain is 160 millimeters long, how long is each bead?



$$5x + 35 = 160$$

Name: _____

Estimate the quotients.

4. $588 \div 19$

Estimate the quotient of 588 and 19.

5. $4,113 \div 82$

Estimate the quotient of 4,113 and 82.

Mrs. Santiago is making a double-berry pie. She adds $1\frac{3}{4}$ cups of blueberries and $2\frac{1}{4}$ cups of strawberries.

6. How many cups of berries does Mrs. Santiago use in all?

Draw a picture to solve.

7. How many more cups of strawberries than blueberries does she use?

Draw a picture to solve.

Decide whether each statement is true or false. If it is false, change one of the **bold** numbers to make it true.

8. 87×43 is about 3,600.

Draw a picture to solve.

9. $4,539 \div 64$ is about 90.

Draw a picture to solve.

10. $3,514 \div 52$ is about 70.

Draw a picture to solve.

11. 196×78 is about 8,000.

Draw a picture to solve.

12. **Challenge:** Numbers that follow each other when you count are **consecutive numbers**. For example, 4, 5, and 6 are consecutive numbers.

If the product of three consecutive numbers is about 27,000, what could the numbers be?

Draw a picture to solve.

Create and interpret frequency tables

1. A science club is doing an experiment to see what happens when you combine warm water, dry ice, and dish soap. This list shows how many cups of dish soap the club members brought in.

0	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$
$1\frac{1}{2}$	$1\frac{3}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	0
$\frac{1}{4}$	$\frac{1}{2}$	$1\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{4}$

Record the data in the frequency table.

Dish soap (cups)							
Frequency							

How many club members brought in more than 1 cup of dish soap?

Write or type your answer.

2. Mrs. Cook's class is participating in a reading challenge. When the class reaches a total of 50 hours spent reading at home, they will earn an extra recess. This table shows how many hours each student read during the first week.

Time (hours)	1	1.5	1.75	2	2.5	3
Frequency	3	1	4	5	4	3

How many total hours did Mrs. Cook's class spend reading during the first week?

Write or type your answer.

Name: _____

Multiply.

3. $4.57 \times 10 =$ _____

4. $6,102 \times 0.01 =$ _____

5. $10.5 \times 100 =$ _____

6. $79.5 \times 0.1 =$ _____

Write an expression for each description.

7. four and six tenths more than the product of two tenths and three

$4.6 + (0.2 \times 3)$

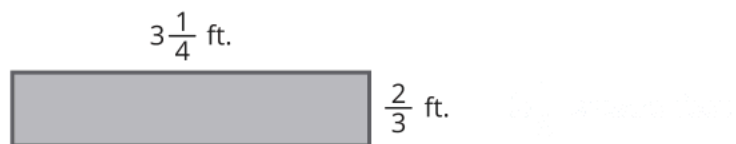
8. multiply seven-twelfths by the difference of eight and three-fourths

$\frac{7}{12} \times (8 - \frac{3}{4})$

9. one and five-sixths less than the quotient of twenty-four and three

$24 \div 3 - 1\frac{5}{6}$

10. What is the area of the rectangle?



11. **Challenge:** Use the digits 0–6 to write two expressions with the same value. Each digit may only be used once.

First expression

$\div$

Second expression

$\times$



Lesson
12.2

Mean

Name: _____

Find the mean.

1. Number of students: 26, 28, 27, 27, 27
2. Snake lengths (feet): 4, 4, 3, 8, 4, 4, 3, 4

27 students

4.25 feet

3. Kat recorded the total number of miles she ran each week for eight weeks.

Miles	3	6	9	10
Frequency	3	1	3	1

Find the mean of the data.

6.75 miles

4. Farid walks dogs after school to earn money. The list shows how much money he made each day for the past 10 days. Complete the frequency table to show the data. Then find the mean.

\$12 \$0 \$12 \$24 \$0
\$0 \$12 \$24 \$12 \$0

Money earned	Frequency
\$0	
\$12	
\$24	

Mean: \$12.00

Name: _____

Fill in the missing numbers to make the equations true.

5. $100 \div 5 = 5 \times \underline{\hspace{2cm}}$

6. $\underline{\hspace{2cm}} \times \frac{2}{3} = 12 \times \frac{1}{2}$

7. Shade the row, column, or diagonal with all true equations.

$0.45 \div 10 = 4.5$	$602 \div 100 = 60.2$	$0.8 \times 0.1 = 0.08$
$1.65 \div 0.1 = 0.165$	$27.1 \times 0.01 = 2.71$	$0.04 \div 0.01 = 4$
$0.318 \times 100 = 3.18$	$0.01 \times 10 = 1$	$9.32 \times 1,000 = 9,320$

Write a description for each expression.

8. $(8 + 7) \times \frac{9}{16}$

9. $5.4 \div 1.8 - 1.5$

10. $3 + \left(\frac{11}{20} - \frac{5}{20}\right)$

11. **Challenge:** Connor says that he can tell $10 \div 5 + 3 + 4 \times 5$ and $(10 \div 5 + 3) + (4 \times 5)$ have the same value without evaluating them. Explain how.



Mode, median, and range

Find the mode, median, and range of each data set.

1. Players at football practice: 24, 18, 20, 24, 28, 18, 20

Mode: _____

Median: _____

Range: _____

2. Chapters read each day: 2, 3, 1, 3, 2, 2, 2, 1

Mode: _____

Median: _____

Range: _____

3. The Suncoast Strikers Soccer Club made a frequency table showing the number of players on each team in their league. Find the mode, median, and range of the data.

Players	13	14	15	16
Frequency	1	6	5	4

Mode: _____ Median: _____ Range: _____

4. Helen makes candles to sell at craft fairs. The table shows the sizes she has in stock. Find the mean and median of the data.

Size (oz.)	Frequency
3	8
5	6
8	2
15	1

Mean: _____

Median: _____

Name: _____

5. Mark all the descriptions that match this expression.

$$\frac{1}{3} \times 5 - 2$$

- ☐ two less than the product of one-third and five
- ☐ five minus two times one-third
- ☐ one-third times the difference of five and two
- ☐ one-third times five minus two

Divide.

6. $17.6 \div 10 =$ _____

7. $8.15 \div 0.01 =$ _____

8. $110.9 \div 100 =$ _____

9. $2.34 \div 0.1 =$ _____

10. Plot and connect the points on the coordinate plane.

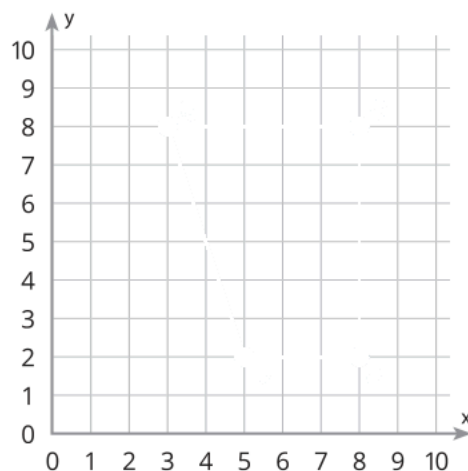
$U(8, 8)$

$Q(3, 8)$

$D(5, 2)$

$A(8, 2)$

What shape do the points form?



11. **Challenge:** The area of a rectangle is $3\frac{1}{3}$ square feet. The length and width are both greater than 1 foot. What could the dimensions of the rectangle be?

Length: _____

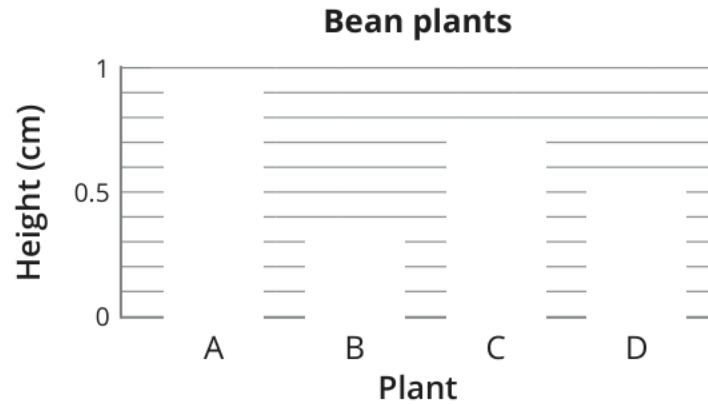
Width: _____



Bar graphs

1. Suzie planted four bean plants in her garden and measured their heights after one week. Make a bar graph to show the data.

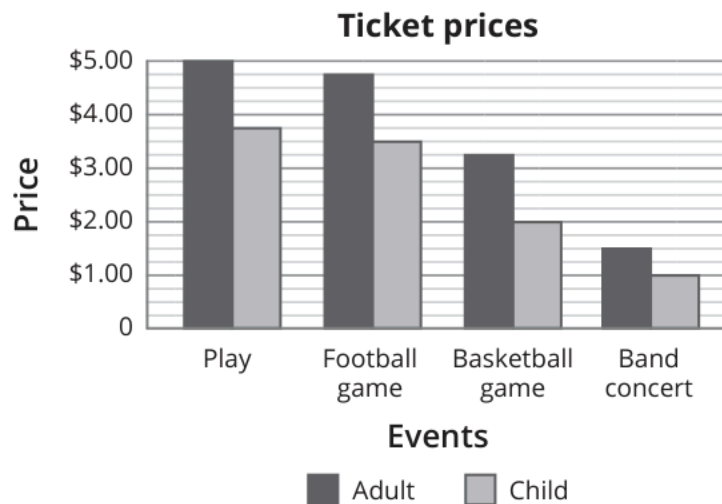
Plant	Height (cm)
A	0.9
B	0.3
C	0.7
D	0.5



Two weeks later, plant B had doubled in height. How tall was it then?

2. The double bar graph shows the ticket prices for different events at Longhorn Elementary School.

How much more does an adult ticket for the play cost than a child ticket?



Sarah's family has 2 adults and 3 children. How much does it cost her family to go to a football game?

Name: _____

3. Deb made a rectangular sign with a perimeter of 216 inches for her barn. If the sign is $6\frac{1}{2}$ feet long, how many square inches does it cover?

4. Find the coordinates of each point.

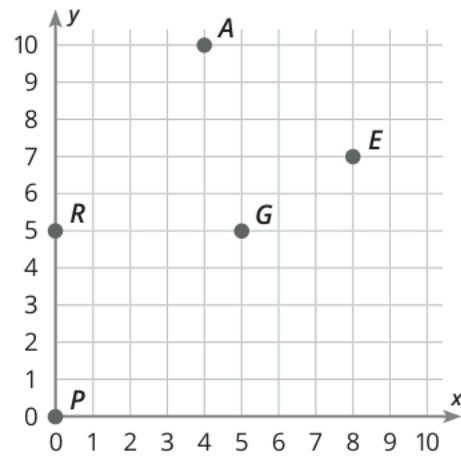
Point G: _____

Point R: _____

Point A: _____

Point P: _____

Point E: _____



5. Circle the quadrilateral that has no right angles and no congruent sides.



6. **Challenge:** Connor says that he can tell $10 \div 5 + 3 + 4 \times 5$ and $(10 \div 5 + 3) + (4 \times 5)$ have the same value without evaluating them. Explain how.

