# **Math 6 B Unit Test Guide**

## Multiply and Divide Fractions Unit Test

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| **Item** | **Lesson Coverage** | **Objective** | **Lesson Page** | **Assessment Item** |
| 1 | Lesson 1: Multiply Whole Numbers and Fractions | In this section, you will multiply a whole number and a fraction to find the product. | All | Multiply $\frac{5}{12} times 2.$ Write the answer in simplest form.Answer: $\frac{5}{6}$ |
| 2 | Lesson 1: Multiply Whole Numbers and Fractions | In this section, you will multiply a whole number and a fraction to find the product. | All | Multiply $\frac{4}{9} times 7.$ Write the answer as a mixed number.Answer: $3\frac{1}{9}$ |
| 3 | Lesson 2: Multiply Two Fractions | In this section, you will multiply two fractions. | All | Find the product of $\frac{2}{3} × \frac{5}{9}$ . Answer: $\frac{10}{27}$ |
| 4 | Lesson 2: Multiply Two Fractions | In this section, you will multiply two fractions. | All | Multiply $\frac{4}{5} times \frac{5}{8}$. Write the answer in simplest form.Answer: $\frac{1}{2}$ |
| 5 | Lesson 3: Multiply Fractions and Mixed Numbers | In this section, you will multiply fractions and mixed numbers. | All | Multiply $\frac{1}{9} by 4\frac{1}{5}$. Write the answer in simplest form.Answer: $\frac{7}{15}$ |
| 6 | Lesson 3: Multiply Fractions and Mixed Numbers | In this section, you will multiply fractions and mixed numbers. | All | Multiply $\frac{4}{5} by 7\frac{1}{3}$ . Convert the product to a mixed number.Answer: $5 \frac{13}{15}$ |
| 7 | Lesson 4: Multiply Fractions to Solve Problems | In this section, you will solve real-world problems involving health literacy by multiplying fractions. | All | In a survey of teenagers, $\frac{2}{3}$ responded that they got regular exercise, and $\frac{4}{5}$ of those said that walking was their main form of exercise. What fraction of the teenagers mainly exercise by walking?Answer: $\frac{8}{15}$ |
| 8 | Lesson 4: Multiply Fractions to Solve Problems | In this section, you will solve real-world problems involving health literacy by multiplying fractions. | All | Clarissa cycled at $12 \frac{1}{2}$ miles per hour for $2 \frac{1}{2}$ hours. How far did she travel?Answer: $31\frac{1}{4}$ miles |
| 9 | Lesson 7: Quotients of Fractions | In this section, you will compute the quotient in problems with fractions. | p. 1-6 | Compute: $\frac{9}{11} ÷ \frac{1}{3}$ . Simplify the answer if possible.Answer: $2\frac{5}{11}$ |
| 10 | Lesson 7: Quotients of Fractions | In this section, you will compute the quotient in problems with fractions. | p. 7-13 | Sam has $1\frac{1}{2}$ feet of cord to make bracelets. Each bracelet needs $\frac{1}{4}$ foot of cord. How many bracelets can he make?Answer: 6 |
| 11 | Lesson 7: Quotients of Fractions | In this section, you will interpret the quotient after dividing fractions. | p. 7-13 | Andre is cutting fence boards from a large piece of wood $10 \frac{1}{4}$ yards long. Each board needs to be $\frac{4}{5}$ yard. How many whole, equal-sized boards can he cut from this piece of wood?Answer: 12 |
| 12 | Lesson 8: Divide Fractions and Whole Numbers | In this section, you will determine the quotient of a fraction and a whole number. | All | What is the quotient of $\frac{8}{9} ÷5$? Simplify your answer if needed.Answer: $\frac{8}{45}$ |
| 13 | Lesson 8: Divide Fractions and Whole Numbers | In this section, you will determine the quotient of a fraction and a whole number. | All | Mallory wants to run 24 miles this month. If she can run $\frac{3}{4}$ of a mile each day she runs, how many days will it take her to run those 24 miles?Answer: 32 days |
| 14 | Lesson 9: Divide Fractions to Solve Problems | In this section, you will solve word problems that involve dividing fractions by fractions. | All | Reggie is making doll clothes for his little sister. He has 3 yards of fabric. If each dress uses $\frac{3}{8}$ yard of fabric, how many dresses can he make?Answer: 8 dresses |
| 15 | Lesson 9: Divide Fractions to Solve Problems | In this section, you will solve word problems that involve dividing fractions by fractions. | All | Jessie was given the problem $3\frac{2}{5} ÷ \frac{3}{10} =$ to solve. Jessie’s work looks like this: Jessie’s answer is incorrect. Answer the following questions about Jessie’s work. 1. Find and describe Jessie’s error.
2. What is the correct answer?

Answer: 1. The student should include identifying the error Jessie made: the reciprocal of the second fraction was not found. Jessie should have found the reciprocal of $\frac{3}{10}$ , which is $\frac{10}{3}$, before multiplying the fractions.
2. The correct answer is $11\frac{1}{3}$
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