Additional Problems: Structures of Expressions

**The Distributive Property**

1. Simplify the expression using the distributive property: 3 (4 + 7)
2. Simplify the expression using the distributive property: 6 (2 + 8)
3. Use the Distributive Property to rewrite the following polynomial expression: 4 (y + 3)
4. Use the Distributive Property to rewrite the following polynomial expression: 10 (x + 9)
5. Use the Distributive Property to rewrite the following expression using the tabular model: (y+2)(y-3)
6. Rewrite the expression 4y (y + 2) using the Distributive Property
7. Rewrite the expression 6a (3a + 5) using the Distributive Property
8. Find the product of the polynomials (3x + 10) (2x – 5)
9. From first to last, order the steps to prove that expression A is equivalent to expression B.
   * 1. Expression A: ((x + 3)(x - 5))
     2. Expression B: (x^2 - 2x - 15)
   1. Option 1: ((x\_3)(x-5))
   2. Option 2: x^2 – 5x + 3x -15
   3. Option 3: x^2 – 2x – 15
   4. Option 4: (x(x) – x(5) + 3(x) – 3(5))
10. From first to last, order the steps to prove that expression A is equivalent to expression B.
    * 1. Expression A: ((2x – 1)(x + 6)
      2. Expression B: (2x^2 + 11x – 6)
    1. Option 1: ((2x – 1)(x +6))
    2. Option 2: 2x^2 + 12x – x - 6
    3. Option 3: 2x^2 +11x -6
    4. Option 4: (2x(x) + 2x(6) -1(x) – 1(6))