Name: Class: Date:

Lesson #8 – Equivalent Expressions/ Distributive Property

1. Use the distributive property to create an equivalent expression. Write the two expressions with an equal sign to show they are equivalent:

4(7x + 5)

(6 + 4) x

9 (x + 2)

4 (x + 11)

1. Write two equivalent expressions that represent the models below:

 **3**

**5**

**x**

**x**

**6**

**4**

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Review Prior Knowledge***

1. If **y= 4**, are both expressions equivalent? 2(**y** + 7) +3**y** and 5**y** + 14
2. Mrs. Bennett has graded 20% of her 150 students’ papers. How many papers does she still need to grade?
3. If Andrew’s receipt for 12 bananas was $3.12, how much was each banana? How much would 28 bananas cost?

Each Banana:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

28 Bananas:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2 Directions: Use substitution to prove that both are equivalent. When X = 4

 EXAMPLE: 5(2X + 6) = 10X + 30

 5(2 x4) + 5(6) 10 (4) + 30

 5(8) + 5(6) 40 + 30

 40 + 30 70

 70

**EXTRA STUFF**

1🡪 4(7x + 5)

2🡪 (6 + 4)x

3🡪 9(x+2)

4🡪 4(X+1) +3x

Part 3 Directions: Use the expressions to create a model of the distributive property

**2x**

**6**

**5**

 EXAMPLE: 5(2X + 6)

1🡪 4(7x + 5)

2🡪 (6 + 4)x

3🡪 9(x+2)

4🡪 4(X+1)