3.3 Practice

For use after Lesson 3.3

Name _____ Period _____

Commutative Property (Commute means to move or switch positions)

$3 + 5 = 5 + 3$

1. $7 \cdot 8 =$ _____

2. $a + b =$ _____

Associative Property (Change groupings – associate with a different group)

$(7 + 3) + 5 = 7 + (3 + 5)$

3. $7 \cdot (2 \cdot 4) =$ _____

4. $a + (b + c) =$ _____

Addition Property of Zero

$9 + 0 = 9$

5. $k + 0 =$ _____

6. $7 +$ _____ $= 7$

Multiplication Properties of Zero and One (Identity Property)

$3 \bullet 0 = 0$

7. $m \bullet 0 =$ _____

8. $t \bullet$ _____ $= 0$

$4 \bullet 1 = 4$

9. $b \bullet 1 =$ _____

10. $6 \bullet$ _____ $= 6$

Tell which property the statement illustrates.

11. $3 + 5 = 5 + 3$

12. $12 + 0 = 12$

13. $6 \bullet 7 = 7 \bullet 6$

14. $8 \bullet (10 \bullet 7) = (8 \bullet 10) \bullet 7$

15. $17 \bullet 1 = 17$

16. $8 + (7 + 5) = (8 + 7) + 5$

Simplify the expression. Explain each step.

17. $8 + (7 + x)$

18. $10(11a)$