Solutions - Exercises for Properties of Multiplication

Use with Section 1.5

Rewrite each of the following products using the Commutative Property of Multiplication.

1. $8 \cdot 7$
2. $4 \cdot 9$
3. $1 \cdot 5$
4. $x \cdot 2$
5. $2 \cdot 0$
6. $(5 \cdot 4) \cdot 2$
7. $(a \cdot 5) \cdot 7$
8. $(3 \cdot b) \cdot 4$

1. $8 \cdot 7 = 7 \cdot 8$
2. $4 \cdot 9 = 9 \cdot 4$
3. $1 \cdot 5 = 5 \cdot 1$
4. $x \cdot 2 = 2 \cdot x$
5. $2 \cdot 0 = 0 \cdot 2$
6. $(5 \cdot 4) \cdot 2 = 2 \cdot (5 \cdot 4)$
7. $(a \cdot 5) \cdot 7 = 7 \cdot (a \cdot 5)$
8. $(3 \cdot b) \cdot 4 = (b \cdot 3) \cdot 4$

Rewrite each of the following products using the Associative Property of Multiplication.

9. $(1 \cdot 2) \cdot 3$
10. $2 \cdot (1 \cdot 5)$
11. $(a \cdot 3) \cdot 2$
12. $(x \cdot y) \cdot z$

9. $(1 \cdot 2) \cdot 3 = 1 \cdot (2 \cdot 3)$
10. $2 \cdot (1 \cdot 5) = 2 \cdot (1 \cdot 5)$
11. $(a \cdot 3) \cdot 2 = a \cdot (3 \cdot 2)$
12. $(x \cdot y) \cdot z = x \cdot (y \cdot z)$

Identify each statement in Problems 11 - 20 as an example of one of the following properties.

a. Multiplication Property of 1
b. Commutative Property of Multiplication
c. Associative Property of Multiplication

13. $(9 \cdot 2) \cdot 4 = 9 \cdot (2 \cdot 4)$
14. $5 \cdot 8 = 8 \cdot 5$
15. $4 \cdot 1 = 4$
16. $(9 \cdot 2) \cdot 4 = 4 \cdot (9 \cdot 2)$
17. $(x \cdot 4) \cdot 3 = x \cdot (4 \cdot 3)$
18. $a \cdot 2 = 2 \cdot a$
19. $2 \cdot (1 \cdot 11) = (2 \cdot 1) \cdot 11$
20. $1 \cdot a = a$

13. c
14. b
15. a
16. b
17. c
18. b
19. c
20. a