



Solutions - Exercises for Properties of Addition

Use with Section 1.2

Rewrite each of the following sums using the Commutative Property of Addition.

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

Solutions:

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

Rewrite each of the following sums using the Associative Property of Addition.

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

Solutions:

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

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

- a. Addition Property of 0
- b. Commutative Property of Addition
- c. Associative Property of Addition

13. $(9 + 2) + 4 = 9 + (2 + 4)$
14. $5 + 8 = 8 + 5$
15. $4 + 0 = 4$
16. $(9 + 2) + 4 = 4 + (9 + 2)$
17. $(x + 4) + 3 = x + (4 + 3)$
18. $a + 2 = 2 + a$
19. $2 + (1 + 11) = (2 + 1) + 11$
20. $0 + a = a$

Solutions:

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