

## Chapter 2 Section 2: Behavior of Numbers and Variables

### Problems

Indicate whether each of the following is True or False.

1.  $3 + 5 = 5 + 3$

\_\_\_\_\_

2.  $-2 + (-4) = -4 + (-2)$

\_\_\_\_\_

3.  $-7 + 4 = 4 + (-7)$

\_\_\_\_\_

4.  $a + v = v + a$

\_\_\_\_\_

5.  $-9 + 8 = 8 + (-9)$

\_\_\_\_\_

6.  $18 - 9 = 9 - 18$

\_\_\_\_\_

7.  $t - x = x - t$

\_\_\_\_\_

8.  $n - m = m - n$

\_\_\_\_\_

9.  $ab - dc = dc - ab$

\_\_\_\_\_

10.  $2 + 3 + 7 = 7 + 2 + 3$

\_\_\_\_\_

11.  $t \times 0 = 0 \times t$

\_\_\_\_\_

12.  $a^2 = 2a$

\_\_\_\_\_

13.  $a \times b = b \times a$

\_\_\_\_\_

14.  $-4 \times (-5) = -5 \times (-4)$

\_\_\_\_\_

15.  $4 \times 5 \times 8 = 8 \times 4 \times 5$

\_\_\_\_\_

16.  $7 \times 0 \times 5 = 1 \times 7 \times 5$

\_\_\_\_\_

17.  $\frac{2}{3} = \frac{3}{2}$

\_\_\_\_\_

18.  $7 \div 5 = 5 \div 7$

\_\_\_\_\_

19.  $\frac{x}{y} = \frac{y}{x}$

\_\_\_\_\_

20.  $(4 + 2) + 7 = 4 + (2 + 7)$

\_\_\_\_\_

21.  $3 \times (5 \times 2) \times 7 = 3 \times 5 \times (2 \times 7)$

\_\_\_\_\_

22.  $2 \times (3 + 4) = 2 \times 7$

\_\_\_\_\_

23.  $x \times (w - z) = xw - xz$

\_\_\_\_\_

24.  $ab + ad = a \times (b + d)$

\_\_\_\_\_

25.  $x(y + 1) = xy + x$

\_\_\_\_\_

Simplify each of the following.

26.  $5 \times (8 + 7) =$  \_\_\_\_\_

27.  $(6 + 3) \times 9 =$  \_\_\_\_\_

28.  $3 \times (5 - 5) =$  \_\_\_\_\_

29.  $5 \times (4 + 3) =$  \_\_\_\_\_

30.  $(5 - 3) \times 4 =$  \_\_\_\_\_

31.  $(5 + 4) \times 0 =$  \_\_\_\_\_

32.  $4 \times (5 - 5) =$  \_\_\_\_\_

33.  $(5 - 4) \times 4 =$  \_\_\_\_\_

34.  $5 \times (3 + 5) =$  \_\_\_\_\_

35.  $(4 - 3) \times 4 =$  \_\_\_\_\_

36.  $(4 + 3) \times 4 =$  \_\_\_\_\_

37.  $5 \times (4 \times 3) =$  \_\_\_\_\_

38.  $4 \times (5 \times 3) =$  \_\_\_\_\_

39.  $m \times (b - c) =$  \_\_\_\_\_

40.  $t \times (b - w) =$  \_\_\_\_\_

41.  $a \times (z - w) = \underline{\hspace{2cm}}$       42.  $(q + r) \times 0 = \underline{\hspace{2cm}}$       43.  $(3 + b) \times z = \underline{\hspace{2cm}}$
44.  $(d - p) \times q = \underline{\hspace{2cm}}$       45.  $(f + d) \times 0 = \underline{\hspace{2cm}}$       46.  $a + 0 = \underline{\hspace{2cm}}$
47.  $4 - 0 = \underline{\hspace{2cm}}$       48.  $\frac{12}{0} = \underline{\hspace{2cm}}$       49.  $\frac{0}{3} = \underline{\hspace{2cm}}$
50.  $1 \cdot 23 = \underline{\hspace{2cm}}$       51.  $1 \cdot x = \underline{\hspace{2cm}}$       52.  $\frac{11}{1} = \underline{\hspace{2cm}}$
53.  $\frac{y}{1} = \underline{\hspace{2cm}}$       54.  $\frac{z}{0} = \underline{\hspace{2cm}}$       55.  $\frac{0}{z} = \underline{\hspace{2cm}}$