

NAME _____

DATE _____

DISTRIBUTIVE PROPERTY: Worksheet 3

Simplify each expression.

1) $14(x + 5)$

2) $7(4t + 3)$

3) $-2(y - 3)$

4) $3(y + 6)$

5) $-2(3y + 7)$

6) $5(x + 1) - 2(x - 3)$

Solve each equation for the given variable.

7) $4(3t + 1) = 88$

8) $5(3x + 3) = -15$

9) $-4(y - 1) = -24$

10) $4(2w + 8) = 8$

KEY
DISTRIBUTIVE PROPERTY: Worksheet 3

Simplify each expression.

1) $14(x + 5)$ $14(x + 5) = 14x + 70$

2) $7(4t + 3)$ $7(4t + 3) = 28t + 21$

3) $-2(y - 3)$ $-2(y - 3) = -2y + 6$

4) $3(y + 6)$ $3(y + 6) = 3y + 18$

5) $-2(3y + 7)$ $-2(3y + 7) = -6y - 14$

6) $5(x + 1) - 2(x - 3)$ $5(x + 1) - 2(x - 3) =$
 $5x + 5 - 2x + 6 =$
 $3x + 11$

Solve each equation for the given variable.

| | | | |
|----------------------|---|--|--|
| 7) $4(3t + 1) = 88$ | $4(3t + 1) = 88$ $12t + 4 = 88$ $12t + 4 - 4 = 88 - 4$ | | $12t = 84$ $12t \div 12 = 84 \div 12$ $t = 7$ |
| 8) $5(3x + 3) = -15$ | $5(3x + 3) = -15$ $15x + 15 = -15$ $15x + 15 - 15 = -15 - 15$ | | $15x = -30$ $15x \div 15 = -30 \div 15$ $x = -2$ |
| 9) $-4(y - 1) = -24$ | $-4(y - 1) = -24$ $-4y + 4 = -24$ $-4y + 4 - 4 = -24 - 4$ | | $-4y = -28$ $-4y \div -4 = -28 \div -4$ $y = 7$ |
| 10) $4(2w + 8) = 8$ | $4(2w + 8) = 8$ $8w + 32 = 8$ $8w + 32 - 32 = 8 - 32$ | | $8w = -24$ $8w \div 8 = -24 \div 8$ $w = -3$ |