

NAME _____

DATE _____

DISTRIBUTIVE PROPERTY: Worksheet 2

Simplify each expression.

1) $8(x + 6)$

2) $2(3t + 5)$

3) $-6(y - 2)$

4) $9(y + 3)$

5) $-3(2y + 11)$

6) $2(x + 7) + 5(x - 2)$

Solve each equation for the given variable.

7) $3(t + 5) = 36$

8) $7(3x + 4) = 70$

9) $-3(y - 1) = -12$

10) $6(4w + 2) = -36$

KEY
DISTRIBUTIVE PROPERTY: Worksheet 2

Simplify each expression.

1) $8(x+6)$ $8(x+6) = 8x+48$

2) $2(3t+5)$ $2(3t+5) = 6t+10$

3) $-6(y-2)$ $-6(y-2) = -6y+12$

4) $9(y+3)$ $9(y+3) = 9y+27$

5) $-3(2y+11)$ $-3(2y+11) = -6y-33$

6) $2(x+7)+5(x-2)$ $2(x+7)+5(x-2) =$
 $2x+14+5x-10 =$
 $7x+4$

Solve each equation for the given variable.

7) $3(t+5) = 36$ $3(t+5) = 36$
 $3t+15 = 36$
 $3t+15-15 = 36-15$ $3t = 21$
 $3t \div 3 = 21 \div 3$
 $t = 7$

8) $7(3x+4) = 70$ $7(3x+4) = 70$
 $21x+28 = 70$
 $21x+28-28 = 70-28$ $21x = 42$
 $21x \div 21 = 42 \div 21$
 $x = 2$

9) $-3(y-1) = -12$ $-3(y-1) = -12$
 $-3y+3 = -12$
 $-3y+3-3 = -12-3$ $-3y = -15$
 $-3y \div -3 = -15 \div -3$
 $y = 5$

10) $6(4w+2) = -36$ $6(4w+2) = -36$
 $24w+12 = -36$
 $24w+12-12 = -36-12$ $24w = -48$
 $24w \div 24 = -48 \div 24$
 $w = -2$