

NAME _____

DATE _____

DISTRIBUTIVE PROPERTY: Worksheet 4

Simplify each expression.

1) $10(x + 8)$

2) $3(5t + 1)$

3) $-7(y - 5)$

4) $8(y + 9)$

5) $-8(8y + 1)$

6) $4(x + 5) - 3(x - 2)$

Solve each equation for the given variable.

7) $7(4t + 3) = 301$

8) $9(2x + 1) = -45$

9) $-6(y - 3) = -18$

10) $8(9w + 3) = -120$

KEY
DISTRIBUTIVE PROPERTY: Worksheet 4

Simplify each expression.

1) $10(x + 8)$ $10(x + 8) = 10x + 80$

2) $3(5t + 1)$ $3(5t + 1) = 15t + 3$

3) $-7(y - 5)$ $-7(y - 5) = -7y + 35$

4) $8(y + 9)$ $8(y + 9) = 8y + 72$

5) $-8(8y + 1)$ $-8(8y + 1) = -64y - 8$

6) $4(x + 5) - 3(x - 2)$ $4(x + 5) - 3(x - 2) =$
 $4x + 20 - 3x + 6 =$
 $x + 26$

Solve each equation for the given variable.

7) $7(4t + 3) = 301$ $7(4t + 3) = 301$ $28t = 280$
 $28t + 21 = 301$ $28t \div 28 = 280 \div 28$
 $28t + 21 - 21 = 301 - 21$ $t = 10$

8) $9(2x + 1) = -45$ $9(2x + 1) = -45$ $18x = -54$
 $18x + 9 = -45$ $18x \div 18 = -54 \div 18$
 $18x + 9 - 9 = -45 - 9$ $x = -3$

9) $-6(y - 3) = -18$ $-6(y - 3) = -18$ $-6y = -36$
 $-6y + 18 = -18$ $-6y \div -6 = -36 \div -6$
 $-6y + 18 - 18 = -18 - 18$ $y = 6$

10) $8(9w + 3) = -120$ $8(9w + 3) = -120$ $72w = -144$
 $72w + 24 = -120$ $72w \div 72 = -144 \div 72$
 $72w + 24 - 24 = -120 - 24$ $w = -2$