

# Solving for x: Lesson 08

## Distributive Property: Worksheet 1

Name: \_\_\_\_\_

MATH  ALL

Solve using order of operations.

$$7(4+2) = \underline{7 \cdot 6} = \underline{42}$$

$$-3(9-5) = \underline{-3 \cdot 4} = \underline{-12}$$

Solve using distributive property.

$$7(4+2) = \underline{7 \cdot 4} + \underline{7 \cdot 2} = \underline{28 + 14} = \underline{42}$$

$$-3(9-5) = \underline{-3 \cdot 9} + \underline{-3 \cdot -5} = \underline{-27 + 15} = \underline{-12}$$

Simplify using distributive property.

$$7(6w+1) = \underline{42w+7}$$

$$-9(2e^2-5) = \underline{-18e^2+45}$$

$$+(21y+17) = \underline{21y+17}$$

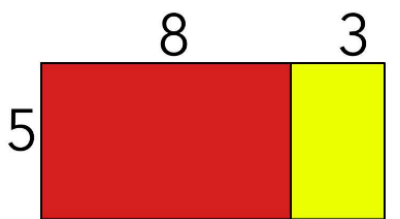
$$-11(3a+4) = \underline{-33a-44}$$

$$10(9x-8) = \underline{90x-80}$$

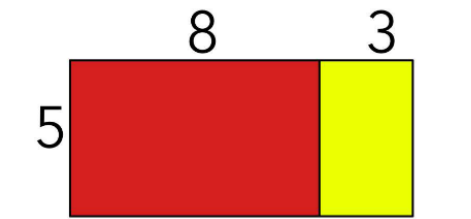
$$-(12b^2-13) = \underline{-12b^2+13}$$

Show area two ways.

One big rectangle


$$\underline{5} (\underline{8} + \underline{3}) = \underline{5 \cdot 11} = \underline{55}$$

Two smaller rectangles


$$\underline{5 \cdot 8} + \underline{5 \cdot 3} = \underline{40 + 15} = \underline{55}$$

Multiply using the distributive property. (There are numerous ways to do this)

$$\begin{aligned} 8 \cdot 22 &= \\ 8(20+2) &= \\ 160+16 &= \textcircled{176} \end{aligned}$$

$$\begin{aligned} 20 \cdot 37 &= \\ 20(30+7) &= \\ 600+140 &= \\ \textcircled{740} \end{aligned}$$

$$\begin{aligned} 9 \cdot 53 &= \\ 9(50+3) &= \\ 450+27 &= \\ \textcircled{477} \end{aligned}$$

Simplify

$$\begin{aligned} -4(x^2-3) + (x^2-13) &= \\ -4x^2+12+x^2-13 &= \\ -3x^2-1 \end{aligned}$$

$$\begin{aligned} 8(3a^3-1) - (5a^3+7) &= \\ 24a^3-8-5a^3-7 &= \\ 19a^3-15 \end{aligned}$$

$$\begin{aligned} -9(x+6) + 6(3x+5) &= \\ -9x-54+18x+30 &= \\ 9x-24 \end{aligned}$$

$$\begin{aligned} 17(y^2-1) - 2(3y^2-5) &= \\ 17y^2-17-6y^2+10 &= \\ 11y^2-7 \end{aligned}$$