

Solving for x: Lesson 08

Distributive Property: Notes

Name: _____

MATH ALL

Solve two ways:

$$6(3+7)$$

$$6 \cdot 10$$

$$60$$

$$6(3+7)$$

$$6 \cdot 3 + 6 \cdot 7$$

$$18 + 42$$

$$60$$

$$3(8x+5) = \underline{24x+15}$$

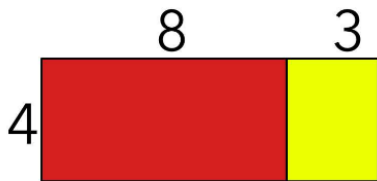
$$-6(7z-3) = \underline{-42z+18}$$

$$+(10y-73) = \underline{10y-73}$$

$$-(2b-11) = \underline{-2b+11}$$

Area two ways:

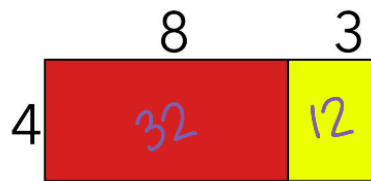
One big rectangle:



$$\underline{4} \cdot (\underline{8} + \underline{3}) =$$

$$\underline{4} \cdot \underline{11} = \underline{44} \text{ units}^2$$

Two smaller rectangles:



$$\underline{4} \cdot \underline{8} + \underline{4} \cdot \underline{3} =$$

$$\underline{32} + \underline{12} =$$

$$\underline{44} \text{ units}^2$$

Multiplying in your head:

1. Pick one of your numbers (usually the bigger one) and break it up into easy numbers.
2. Put your broken number in parenthesis and use distributive property!

$$7 \cdot 32 = 7(\overbrace{30 + 2}) = \underline{210} + \underline{14} = \underline{224}$$

$$11 \cdot 96 = 11(\overbrace{90 + 6}) = \underline{990} + \underline{66} = \underline{1056}$$

$$11 \cdot 96 = 96(\overbrace{10 + 1}) = \underline{960} + \underline{96} = \underline{1056}$$

$$\begin{array}{r} 7(x^2 - 4) - (3x^2 + 5) = \\ \underline{7x^2 - 28} - \underline{3x^2 - 5} = \underline{4x^2 - 33} \end{array}$$