

Distributive Property

$$5 \times (3 + 2) \quad 5 \times 5 = 25$$

$$15 + 10 = 25$$

When using the distributive property, we multiply twice!

1. $5(x + 4)$

$$5x + 20$$

2. $6(y - 2)$

$$6y - 12$$

3. $y(y + 4)$

$$y^2 + 4y$$

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Like terms \rightarrow same variable and exponent

⑧ $3a$ $16a$	⑩ $6b^2$ b^2	⑫ 5 17 6	⑭ $7x^4 - 5x^4 = 2x^4$
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⑮ $6b + 7b - 10$

$$13b - 10$$

⑱ $y + 4 + 3(y + 2) = 4y + 10$

⑳ $7a^3 - 2a^3 = 5a^3$

㉒ $6b^2 - 4b^2 + 6a + 2a$

$$2b^2 + 8a$$

Use the distributive property to combine like terms:

$$4. 17y + 7(5 + 6y)$$

$$\underline{17y} + 35 + \underline{42y} \quad \begin{array}{r} 42 \\ +17 \\ \hline \end{array}$$

$$\underline{59y + 35}$$

$$5. 7(3c - 8) + 4(9 + 11c)$$

$$\underline{21c} - 56 + 36 + \underline{44c}$$

$$\underline{65c - 20}$$

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

$$3y + 5y^2 + 2x - 8$$

$$7. 9(4d - 5) + 2(5d - d)$$

$$\underline{36d} - 45 + \underline{10d} - \underline{2d}$$

$$\underline{44d - 45}$$

Apply the distributive property to create an equivalent expression:

$$8. 24x + 18y$$

$$6(4x + 3y)$$

What is the Greatest Common Factor?

What is the largest # we can "take out of each"?

$$9. 36x + 9$$

$$9(4x + 1)$$

$$10. 24y + 13y$$

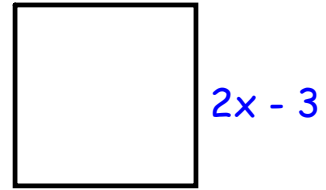
$$y(24 + 13)$$

$$11. 5 - 50p$$

$$5(1 - 10p)$$

14. Find the perimeter of the given square:

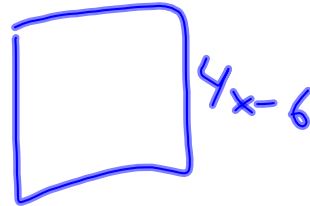
$$\begin{aligned} & \overbrace{4(2x-3)} \\ & 8x - 12 \end{aligned}$$



15: Find the perimeter of the given square if each side is doubled:

$$\begin{aligned} & \overbrace{4(4x-6)} \\ & 16x - 24 \end{aligned}$$

$$\begin{aligned} & \overbrace{2(2x-3)} \\ & 4x - 6 \rightarrow \text{side} \end{aligned}$$



HW

Use the distributive property to create an equivalent expression:

1. $4(3x - 2)$

2. $x(9 + y)$

3. $d(d + 4)$

4. $7(2x - 3y)$

5. $14x - 21$

6. $100y - 30$

7. $4x + 48x$

8. $2x + 26y$