

**Write in Simplified Form:**

1.  $5x^2 - 2x + 5 + x - 3 + 7x^2$

2.  $-8x - x + x^3 - 3x^2 + 5x^3 - 6x^2$

3.  $8 + 2n - 3n^2 + 7n - 1 - n^2$

4.  $5x^2y - 2x + 5x^2 + x^2y - 3 + 7x^2 - x^2y$

$$1. \quad \boxed{5x^2} - 2x + \underline{\underline{5}} \quad \underline{\underline{+1x}} - \underline{\underline{3}} \quad \boxed{+ 7x^2}$$
$$= 12x^2 - 1x + 2$$

$$2. \quad \underline{\underline{-8x}} \quad \underline{\underline{-1x}} \quad \boxed{+1x^3} \quad \textcircled{-3x^2} \quad \boxed{+5x^3} \quad \textcircled{-6x^2}$$
$$= 6x^3 - 9x^2 - 9x$$

$$3. \quad \underline{\underline{8}} + 2n \boxed{-3n^2} + 7n \underline{\underline{-1}} \boxed{-n^2}$$

$$= -4n^2 + 9n + 7$$

$$4. \quad \boxed{5x^2y} - \underline{\underline{2x}} \quad \textcircled{+ 5x^2} \quad \boxed{+ 1x^2y} \quad \textcircled{- 3} \quad \boxed{+ 7x^2} \quad \boxed{- x^2y}$$

$$= 5x^2y + 12x^2 - 2x - 3$$

Write an example of something that is NOT a polynomial.

$$5 + \frac{2}{x} \quad \sqrt{a}$$

Monomial? Binomial? or Trinomial?

$$8x^2 - 2 + 7x^2$$

$$15x^2 - 2$$

Binomial

Simplify :)

$$+8x^3 - 13 + 7x^2 - 2 + 2x^3 - 4x^2 + 11$$

$$= 10x^3 + 3x^2 - 4$$

When **no #**  
appears in front  
of the bracket  
we assume it is **"1"**

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

"Remove Brackets"  
Everything stays  
the same !!

$$= 1(2x + 4) + 1(3x - 5)$$

$$= \boxed{2x} + \underline{\underline{4}} + \boxed{3x} - \underline{\underline{5}}$$

$$= \textcircled{2x} + \textcircled{4} + \textcircled{3x} - \textcircled{5}$$

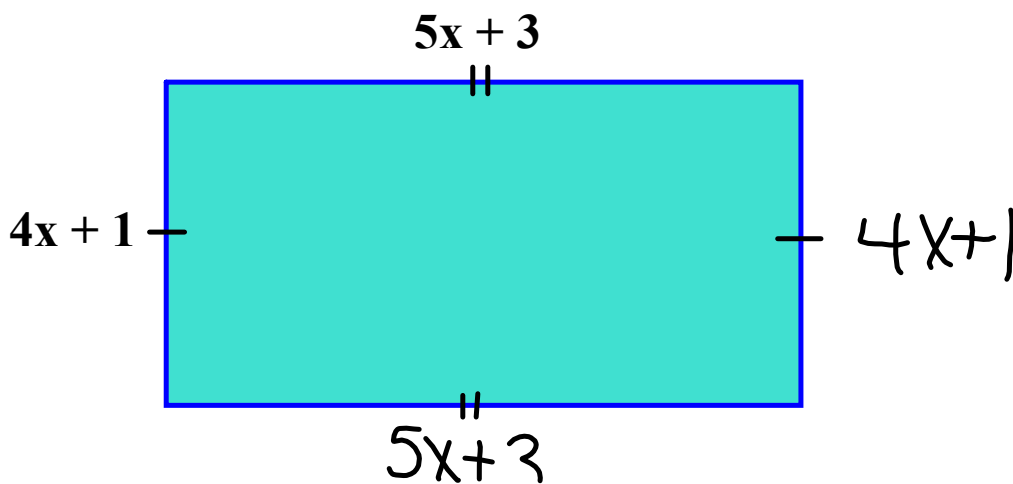
$$= 5x - 1$$

$$\begin{aligned} & (4x^2 + 3x - 5) + (7x^2 - 8x - 1) \\ = & \mathbf{1}(4x^2 + 3x - 5) + \mathbf{1}(7x^2 - 8x - 1) \\ = & 4x^2 + 3x - 5 + 7x^2 - 8x - 1 \\ = & \textcircled{4x^2} + \textcircled{3x} - \textcircled{5} + \textcircled{7x^2} - \textcircled{8x} - \textcircled{1} \\ = & 11x^2 - 5x - 6 \end{aligned}$$



$$\begin{aligned} & (9 - 9n^2) + (10n^2 + 5) + (-6n^2 + 3) \\ &= \overset{\text{red arrows}}{1}(9 - 9n^2) + \overset{\text{red arrows}}{1}(10n^2 + 5) + \overset{\text{red arrows}}{1}(-6n^2 + 3) \\ &= 9 - 9n^2 + 10n^2 + 5 - 6n^2 + 3 \\ &= \overset{\text{blue circles}}{9} - \overset{\text{red circles}}{9n^2} + \overset{\text{red circles}}{10n^2} + \overset{\text{blue circles}}{5} - \overset{\text{red circles}}{6n^2} + \overset{\text{blue circles}}{3} \\ &= -5n^2 + 17 \end{aligned}$$

# Calculate the Perimeter



$$= (4x + 1) + (4x + 1) + (5x + 3) + (5x + 3)$$

$$\underline{\underline{4x+1}} + \underline{\underline{4x+1}} + \underline{\underline{5x+3}} + \underline{\underline{5x+3}}$$

$$= 18x + 8$$



