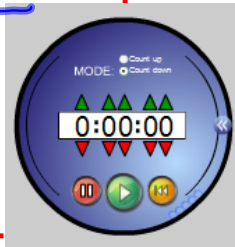


Write a monomial that is NOT a polynomial.

Monomial? Binomial? or Trinomial?

$\frac{1}{x}$ ,  $\frac{1}{2}$ ,  $\sqrt{x}$



$$5x^2 - 11x^1 - 2$$

Trinomial

Simplify :)

$$11x^4 - 12 - x^2 - 2x^4 + 2x^4 - 6x^2 + 1$$

$$= 11x^4 - 7x^2 - 11$$

$$(x + 2) + (x^2 + x - 4)$$

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

# Adding Polynomials

$$(5x - 3x) + (6x + 7)$$

$$(5x + 2) + (3x^2 + 7x - 4)$$

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

## Adding Polynomials

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

"Remove Brackets"  
Everything stays  
the same !!

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

$$= 2x + 4 + 3x - 5$$

$$= 2x + 4 + 3x - 5$$

$$= 5x - 1$$

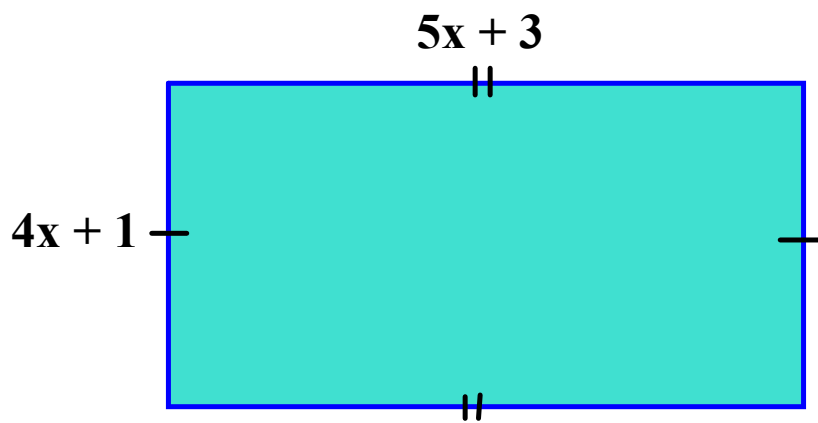
$$\begin{aligned} & (4x^2 + 3x - 5) + (7x^2 - 8x - 1) \\ = & \mathbf{1}(4x^2 + 3x - 5) + \mathbf{1}(7x^2 - 8x - 1) \\ = & 4x^2 + 3x - 5 + 7x^2 - 8x - 1 \\ = & \textcircled{4x^2} + \textcircled{3x} - \textcircled{5} + \textcircled{7x^2} - \textcircled{8x} - \textcircled{1} \\ = & 11x^2 - 5x - 6 \end{aligned}$$

$$\begin{aligned} & (9 - 9n^2) + (10n^2 + 5) + (-6n^2 + 3) \\ &= \mathbf{1}(9 - 9n^2) + \mathbf{1}(10n^2 + 5) + \mathbf{1}(-6n^2 + 3) \\ &= 9 - 9n^2 + 10n^2 + 5 - 6n^2 + 3 \\ &= \mathbf{9} - \mathbf{9n^2} + \mathbf{10n^2} + \mathbf{5} - \mathbf{6n^2} + \mathbf{3} \\ &= -5n^2 + 17 \end{aligned}$$

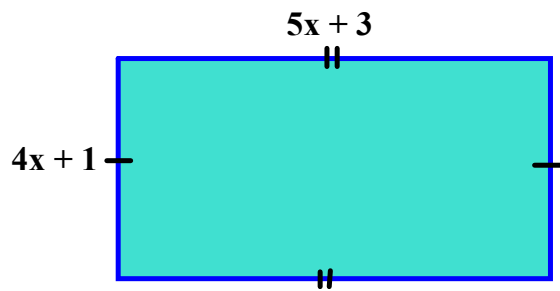
**Now it's your turn!!**

$$\begin{aligned} & (4 - 8p^2) + (10p^2 + 2) + (-6p^2 - 8p - 4) \\ &= \mathbf{1}(4 - 8p^2) + \mathbf{1}(10p^2 + 2) + \mathbf{1}(-6p^2 - 8p - 4) \\ &= 4 - 8p^2 + 10p^2 + 2 - 6p^2 - 8p - 4 \\ &= \textcircled{4} - \textcircled{8p^2} + \textcircled{10p^2} + \textcircled{2} - \textcircled{6p^2} - \textcircled{8p} - \textcircled{4} \\ &= -4p^2 - 8p + 2 \end{aligned}$$

# Calculate the Perimeter



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



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

$$= \mathbf{1}(4x + 1) + \mathbf{1}(4x + 1) + \mathbf{1}(5x + 3) + \mathbf{1}(5x + 3)$$

$$= \textcircled{4x} + \textcircled{1} + \textcircled{4x} + \textcircled{1} + \textcircled{5x} + \textcircled{3} + \textcircled{5x} + \textcircled{3}$$

$$= \mathbf{18x + 8}$$



## Adding Polynomials in Two Variables

$$\text{Add: } (3s^2 + s - 4c - 5cs + 2s^2) + (-5c^2 + 3cs + 6c - 4s + 7c^2)$$

Remove Brackets.

$$= 3s^2 + s - 4c - 5cs + 2s^2 - 5c^2 + 3cs + 6c - 4s + 7c^2$$

Group like terms.

$$= 3s^2 + 2s^2 + s - 4s - 4c + 6c - 5cs + 3cs - 5c^2 + 7c^2$$

Combine like terms.

$$= 5s^2 - 3s + 2c - 2cs + 2c^2$$

# Practice Questions

p.229 - 230

~~#8~~, #9, ~~#10~~

Ultimate Question!!

$$\begin{aligned} & | (3x^2 - 2x + 3) - | (5x^2 - 2x + 1) \\ & \underline{\underline{3x^2}} - 2x + 3 - \underline{\underline{5x^2}} + 2x - 1 \\ & \quad - 2x^2 + 2 \end{aligned}$$