

11-21-17

Aim: SWBAT find the perimeter of geometric shapes.

HW: Packet Page 14

Do Now: Correct hw, then Quiz

HOMEWORK - ADD or SUBTRACT POLYNOMIALS

Add or subtract the following polynomials.

1) $(x^2 + 3x + 2) + (3x^2 + 4x - 9)$

$$\boxed{x^2} + \boxed{3x} + \boxed{2} + \boxed{3x^2} + \boxed{4x} - \boxed{9}$$

$$4x^2 + 7x - 7$$

2) $(6m^2 + 2m - 3) - (7m^2 + 4)$

$$\boxed{6m^2} + \boxed{2m} - \boxed{3} - \boxed{7m^2} - \boxed{4}$$

$$* \quad -m^2 + 2m - 7$$

3) $(5ab + 2ac - 6bc) + (-4ac + 2bc)$

$$\boxed{5ab} + \boxed{2ac} - \boxed{6bc} - \boxed{4ac} + \boxed{2bc}$$

$$5ab - 2ac - 4bc$$

4) $(6x^2 - 3x + 1) + (3x^3 + 4x^2 - 5x)$

$$\boxed{6x^2} - \boxed{3x} + \boxed{1} + \boxed{3x^3} + \boxed{4x^2} - \boxed{5x}$$

$$3x^3 + 10x^2 - 8x + 1$$

5) $(2a^2 + 4a - 1) - (a - 6a^2 + 2)$

$$\boxed{2a^2} + \boxed{4a} - \boxed{1} - \boxed{a} + \boxed{6a^2} - \boxed{2}$$

$$8a^2 + 3a - 3$$

6) $(6r^2x + 5rx^2) - (9rx^2 - 9r^2x)$

$$\boxed{6r^2x} + \boxed{5rx^2} - \boxed{9rx^2} + \boxed{9r^2x}$$

$$15r^2x - 4rx^2$$

7) $(5n^2 + 2n - 9) + (3n^2 - 4)$

$$\boxed{5n^2} + \boxed{2n} - \boxed{9} + \boxed{3n^2} - \boxed{4}$$

$$8n^2 + 2n - 13$$

8) $(3p^2 - p - 1) + (p^2 + p - 4)$

$$\boxed{3p^2} - \boxed{p} - \boxed{1} + \boxed{p^2} + \boxed{p} - \boxed{4}$$

$$4p^2 - 5$$

9) $(x + 15y - 9z) - (7x - 8y + z)$

$$\boxed{x} + \boxed{15y} - \boxed{9z} - \boxed{7x} + \boxed{8y} - \boxed{z}$$

$$-6x + 23y - 10z$$

10) $(4r^2 - r + 8) - (r^2 + 6r - 1)$

$$\boxed{4r^2} - \boxed{r} + \boxed{8} - \boxed{r^2} - \boxed{6r} + \boxed{1}$$

$$3r^2 - 7r + 9$$

11) $(4x^3 + 5x^2 - 2x - 5) - (3x^3 - 4x + 2)$

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

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

12) $(2mn + 3a + 7d) + (-5mn + 7a)$

$$\boxed{2mn} + \boxed{3a} + \boxed{7d} - \boxed{5mn} + \boxed{7a}$$

$$-3mn + 10a + 7d$$

AIM: SWBAT find the perimeter of geometric shapes.

DO NOW:

Find each sum or difference.

1) $(3x + 10) + (6x - 15)$

2) $(x^2 + 9x) - (5x^2 - 3x)$

3) $(-5x^2 + 8x + 12) + (3x^2 - 4x + 8)$


4) $(6x^2 - 11x - 17) - (9x^2 - 8x - 12)$

CLASSWORK:

Perimeter is the distance around the outside of a polygon. You find perimeter by adding up all the sides of a polygon.

Find the perimeter of each polygon. Show all work step-by-step.

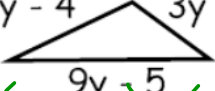
1) $5x + 3$ l



$2x$ w

$P = 2l + 2w$
 $P = 2(5x + 3) + 2(2x)$
 $P = 10x + 6 + 4x$
 $P = 14x + 6$ units

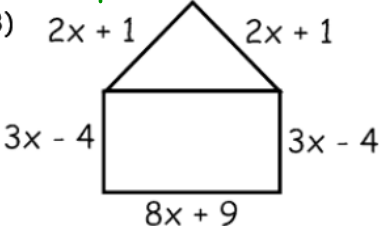
2) $8y - 4$ $3y$



$9y - 5$

$P = (8y - 4) + (3y) + (9y - 5)$
 $P = 20y - 9$ units

3) $2x + 1$ $2x + 1$

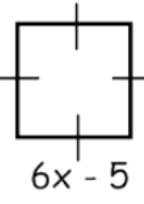


$3x - 4$ $3x - 4$

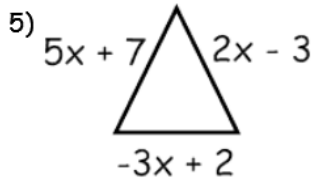
$8x + 9$

$P = 2(2x + 1) + 2(3x - 4) + 8x + 9$
 $P = 4x + 2 + 6x - 8 + 8x + 9$
 $P = 18x + 3$ units

4) $6x - 5$

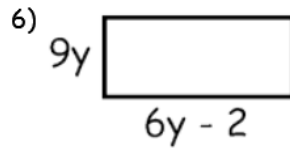


$P = 4s$
 $P = 4(6x - 5)$
 $P = 24x - 20$ units



$$P = (5x + 7) + (2x - 3) + (-3x + 2)$$

$$P = 4x + 6 \text{ units}$$



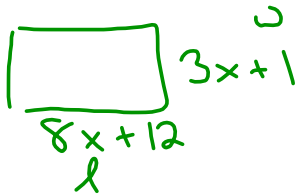
$$P = 2l + 2w$$

$$P = 2(6y - 2) + 2(9y)$$

$$P = 12y - 4 + 18y$$

$$P = 30y - 4 \text{ units}$$

- 7) Jeremiah is building **rectangular** dog run. He has determined the length will be $8x + 12$ feet and the width will be $3x + 1$ feet. Write an expression that Jeremiah can use to calculate how much fencing he needs for the perimeter of the dog run. (Draw a diagram)



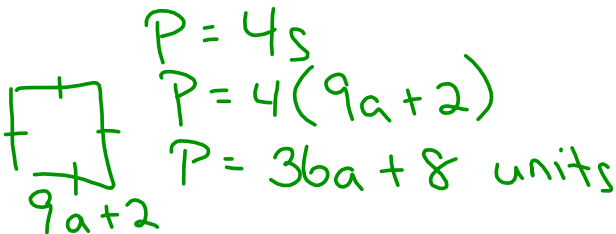
$$P = 2l + 2w$$

$$P = 2(8x + 12) + 2(3x + 1)$$

$$P = 16x + 24 + 6x + 2$$

$$P = 22x + 26 \text{ units}$$

- 8) Tanya is making a piece a modern art. She wants to paint a violet stripe around the edge of the **square** canvas. The edge of the canvas can be represented by $9a + 2$. What is the perimeter of Tanya's canvas? (Draw a diagram)



$$P = 4s$$

$$P = 4(9a + 2)$$

$$P = 36a + 8 \text{ units}$$

- 9) Jorge has a triangular fire pit in his backyard. In order to keep his dog safe he wants to install a small fence around the fire pit. The longest side of the fire pit is 3 feet long. The two remaining sides can be represented together by the expression $7x - 2$. How much fencing does Jorge need to purchase to go around the entire perimeter of the fire pit?

$$P = 3 + (7x - 2)$$

$$P = 7x + 1 \text{ units}$$

HOMEWORK - PERIMETER

- 1) Simplify the following expression: $(8x - 7) - (6 - 2x) + (4x + 11)$

- 2) Simplify: $2(3ac + 4bc) - 3(5bc - 15ab) - (2ab + bc - 2ca)$

- 3) Find the **sum** of $(8a + 3b)$ and $(5a - 2b - c)$

- 4) Find the perimeter of a **rectangle** if the length is $(x^2 - 3x + 2)$ and the width is $(3x - 7)$

- 5) Find the perimeter of an **equilateral triangle** if each side is $5x^3 + 3y$.

- 6) Find the **perimeter** of an **isosceles** triangle if the base measures $7xy + 9x$ and each of the other sides measures $2xy - 5x$.

- 7) Find the **perimeter** of a **square** that has a side length of $3x^2 + 7x$.

- 8) SUBTRACT $(3a + 4b - 2c)$ **FROM** $(13a + b - c)$