

**ADDING**

**CONSTANTS**

**SUBTRACTING**

**VARIABLE**

# **Polynomial Review**

**DEGREE**

**DIVIDING**

**COEFFICIENTS**

**MULTIPLYING**

For the following polynomial

$$12x^5 - 5x^3 + 3xy^9 + 3 - 2y^4$$

Variable(s): \_\_\_\_\_

Coefficient(s): \_\_\_\_\_

Constant(s): \_\_\_\_\_

Degree: \_\_\_\_\_

# of terms: \_\_\_\_\_

For the following polynomial

$$12x^5 - 5x^3 + 3xy^9 + 3 - 2y^4$$

Variable(s):           x & y          

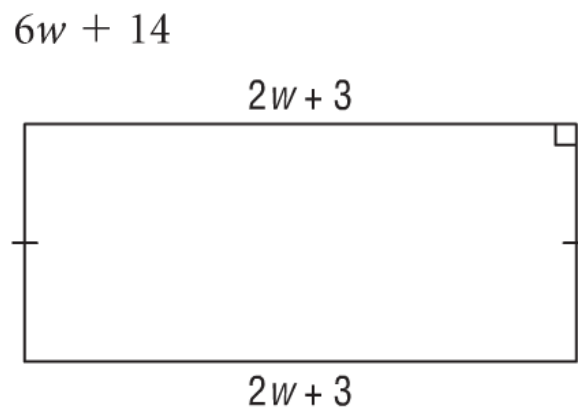
Coefficient(s):           12, -5, 3, -2          

Constant(s):           3          

Degree:           9          

# of terms:           5

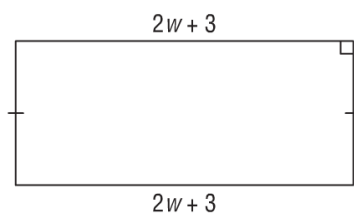
**The perimeter of each polygon is given.**



- a) Determine each unknown length.**
- b) If  $w = 2$ , what is the perimeter?**

**The perimeter of each polygon is given.**

$$6w + 14$$



**a) Determine each unknown length.**

$$\begin{aligned} & (6w + 14) - (2w + 3) - (2w + 3) \\ & = 6w + 14 - 2w - 3 - 2w - 3 \\ & = 2w + 8 \end{aligned}$$

$$\begin{aligned} & = \frac{2w + 8}{2} \\ & = w + 4 \end{aligned}$$

**b) If  $w = 2$ , what is the perimeter?**

$$\begin{aligned} & w + 4 \\ & = 2 + 4 \\ & = 6 \end{aligned}$$

The area of a rectangular drive is  $9d^2 + 3d$  square metres. The driveway is  $3d$  metres long.

- a) Determine a polynomial that represents the width of the driveway.
- b) If  $d = 4$ , what is the area, the width and the length



The area of a rectangular drive is  $9d^2 + 3d$  square metres. The driveway is  $3d$  metres long.

- a) Determine a polynomial that represents the width of the driveway.

$$\begin{aligned} &9d^2 + 3d \\ &3d \\ &= 3d + 1 \end{aligned}$$

- b) If  $d = 4$ , what is the area, the width and the length

$$\begin{aligned} W & \text{ Width} \\ &= 3d + 1 \\ &= 3(4) + 1 \\ &= 12 + 1 \\ &= 13 \text{ m} \end{aligned}$$

$$\begin{aligned} & \text{Length} \\ L &= 3d \\ &= 3(4) \\ &= 12 \text{ m} \end{aligned}$$

$$\begin{aligned} A &= L \times W \\ &= 12 \times 13 \\ &= 156 \text{ m}^2 \end{aligned}$$



Write a **Binomial** that matches the description:  
**Variables:** p and r, **Degree:** 6; **Constant:** -5

$$3pr^6 - 5$$



Simplify: a)  $(12x^3 + 4x^2 - 2x) \div 2x$

$$\frac{12x^3}{2x} + \frac{4x^2}{2x} - \frac{2x}{2x}$$
$$= 6x^2 + 2x - 1$$

b)  $5x(x^2 - 3xy + 5x)$

$$5x^3 - 15x^2y + 25x^2$$