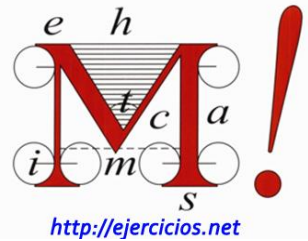


Tema 4 Polinomios

Operaciones con polinomios

Sumas y restas de polinomios



Dados los polinomios:

1. $P(x) = x^4 - 2x^2 - 6x - 1$

2. $Q(x) = x^3 - 6x^2 + 4$

3. $R(x) = 2x^4 - 2x - 2$

Calcular:

1. $P(x) + Q(x) - R(x) =$

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

$$= x^4 - 2x^2 - 6x - 1 + x^3 - 6x^2 + 4 - 2x^4 + 2x + 2 =$$

$$= x^4 - 2x^4 + x^3 - 2x^2 - 6x^2 - 6x + 2x - 1 + 4 + 2 =$$

$$= -x^4 + x^3 - 8x^2 - 4x +$$

2. $P(x) + 2Q(x) - R(x) =$

$$= (x^4 - 2x^2 - 6x - 1) + 2 \cdot (x^3 - 6x^2 + 4) - (2x^4 - 2x - 2) =$$

$$= x^4 - 2x^2 - 6x - 1 + 2x^3 - 12x^2 + 8 - 2x^4 + 2x + 2 =$$

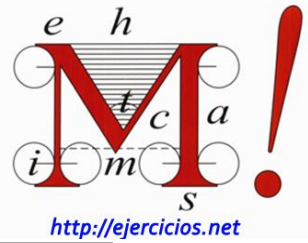
$$= x^4 - 2x^4 + 2x^3 - 2x^2 - 12x^2 - 6x + 2x - 1 + 8 + 2 =$$

$$= -x^4 + 2x^3 - 14x^2 - 4x + 9$$

Tema 4 Polinomios

Operaciones con polinomios

Sumas y restas de polinomios



$$3. Q(x) + R(x) - P(x) =$$

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

$$= x^3 - 6x^2 + 4 + 2x^4 - 2x - 2 - x^4 + 2x^2 + 6x + 1 =$$

$$= 2x^4 - x^4 + x^3 - 6x^2 + 2x^2 - 2x + 6x + 4 - 2 + 1 =$$

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