

Rev finale polynomes

12:30 AM

1. Effectue les operations suivantes:

$$2x^2 - 7x + 9 - (6x^2 + 3x - 11) = -4x^2 - 10x + 20$$

$$4x^2y - 5xy^2 - 12xy - (3xy + x^2y - 7xy^2) =$$

$3x^2y + 2xy^2 - 15xy$

$$2x(x-5) + 3(x^2-7) - 4x(x-9) - 8 =$$
$$2x^2 - 10x + 3x^2 - 21 - 4x^2 + 36x - 8 = x^2 + 26x - 29$$

$$3x^2(x+2) - 9x(x-x^2) - 6(x^2+1) =$$
$$3x^3 + 6x^2 - 9x^2 + 9x^3 - 6x^2 - 6 = 12x^3 + 9x^2 - 6$$

$$xy^2(3x-y) - x^2y(6y-5) - 9x^2y^2 =$$
$$3x^2y^2 - xy^3 - 6x^2y^2 + 5x^2y - 9x^2y^2 = -12x^2y^2 + xy^3 + 5x^2y$$

$$\frac{21y^6 - 14y^2 - 7y}{7} = 3y^6 - 2y^2 - 1$$

$$\frac{32x^3 + 20x^2 - 4x}{-4x} = -8x^2 - 5x + 1$$

$$\frac{12x^2y - 6xy + 18xy^2}{3xy} = 4x - 2 + 6y$$

$$\frac{42x^2 - 9x}{3x} - \frac{64x^3 + 8x^2}{8x^2} = 14x - 3 - 8x - 1$$

$$= 6x - 4$$

$$\frac{25x^{3k+5} - 15x^{3k+1} - 75x^{3k-1}}{5x^{3k-2}} = 5x^7 - 3x^3 - 15x$$

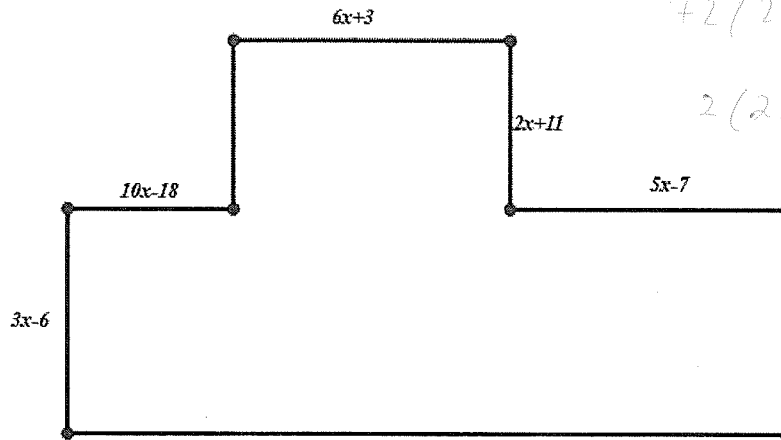
$$\frac{24x^{6k+2} - 8x^{6k-3} - 16x^{6k+1}}{8x^{6k-3}} = 3x^5 - 1 - 2x^4$$

2. La difference de deux polynomes est $5x^2 - 9x + 3$. Un des polynomes est $-2x^2 + 5x - 10$. Quel est l'autre?

a) $3x^2 - 4x - 7$

b) $-7x^2 + 14x - 13$

3. Quel est le perimetre de figures suivantes? Ecris une expression simplifiee.



$$2(6x+3 + 5x-7 + 10x-18) + 2(2x+11 + 3x-6) =$$

$$2(21x-22) + 2(5x+5)$$

$$= 42x - 44 + 10x + 10$$

$$= \boxed{52x - 34}$$

4. Effectue les multiplications suivantes:

$$(x+5)(x+13) = x^2 + 18x + 65$$

$$(x-8)(x-11) = x^2 - 19x + 88$$

$$(x+14)(x-3) = x^2 + 11x - 42$$

$$(x-21)(x+2) = x^2 - 19x - 42$$

5. Decompose en facteurs, si possible:

$$9x + 6 = 3(x+2)$$

$$15x - 45 = 15(x - 3)$$

$$16x^2 - 2x^3 = 2x^2(8 - x)$$

$$40x^2y - 8x^3y = 8x^2y(5 - x)$$

$$9ab - 30ab^2 = 3ab(3 - 10b)$$

$$22x^2 - 12x + 30 = 2(11x^2 - 6x + 15)$$

$$36x^2 - 9x^3 - 21x = 3x(18x - 3x^2 - 7)$$

$$x^2 + 5x + 4 = (x + 4)(x + 1)$$

$$x^2 - 8x + 15 = (x - 3)(x - 5)$$

$$x^2 - 3x - 108 = (x - 12)(x + 9)$$

$$x^2 - 9x + 20 = (x - 4)(x - 5)$$

$$x^2 + 9x - 70 = (x + 14)(x - 5)$$

$$x^2 - 100 = (x-10)(x+10)$$

$$x^2 - 225 = (x-15)(x+15)$$

$$x^2 - 64 = (x-8)(x+8)$$

$$x^2 + 2x + 1 = (x+1)^2$$

$$x^2 + 10x + 25 = (x+5)^2$$

$$x^2 - 16x + 64 = (x-8)^2$$

$$x^2 - 24x + 144 = (x-12)^2$$