

Devoir n°2 - Développer - Factoriser - 3ème

9 octobre 2014 - 1/2h

Exercice 1 (5 pts) : Développer et réduire les expressions suivantes

$$A = (x + 3)^2$$

$$B = (2 - y)^2$$

$$C = (z + 4)(z - 4)$$

$$D = (x - 2)(5x - 1)$$

$$E = (4x - 7) - 2 - (6 - 7x)$$

$$F = (7y - 6)(7y + 6)$$

$$G = (5x - 2)^2 - 3(2 + 3x)^2$$

Exercice 2 (5 pts) : Factoriser les expressions suivantes

$$A = x^2 - 10x + 25$$

$$B = 16y^2 + 8y + 1$$

$$C = 9 - x^2$$

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

$$E = (3x - 1)^2 - 4x^2$$

$$F = 2x(x - 7) - 2x(4 - 3x)$$

$$G = 9x^2 - 36x + 36$$

Ex1 $A = \frac{x^2 + 6x + 9}{95}$

$B = \frac{4 - 4y + y^2}{95}$

$C = \frac{z^2 - 16}{95}$

$D = \frac{5x^2 - 11x + 2}{1}$

$E = \frac{4x - 7 - 2 - 6 + 7x}{95} = \frac{11x - 15}{95}$

$F = \frac{49y^2 - 36}{975}$

$G = \frac{25x^2 - 20x + 4 - 3(4 + 12x + 9x^2)}{125} = \frac{-2x^2 - 56x - 8}{125}$

Ex2 $A = \frac{(x - 5)^2}{95}$

$B = \frac{(4y + 1)^2}{95}$

$C = \frac{(3 + x)(3 - x)}{95}$

$D = \frac{(x - 1)[(5 - x) + (3x - 2)]}{1} = \frac{(x - 1)(3 + 2x)}{1}$

$E = \frac{(3x - 1 - 2x)(3x - 1 + 2x)}{1} = \frac{(x - 1)(5x - 1)}{1}$

$F = \frac{2x[(x - 7) - (4 - 3x)]}{1} = \frac{2x(4x - 11)}{1}$

$G = \frac{(3x - 6)^2}{125} = \frac{(3(x - 2))^2}{125} = \frac{9(x - 2)^2}{125}$