Seconde A Développement

Exercice 1
Développer et réduire

A = – (2x + 5) + (– 3x – 1) B = – 8(2x –7) +3(7x +1)
C = 5x(x –8) + (x +2)(x –1) D = (5x – 1)(2x – 3) – (6x + 5)(x – 4)
E = – 3(– 4x + 3) – (x – 2)(–x + 3) F = 3(x – 1)(x – 4)

Exercice 2
Soit G = – 4(x – 1) + (3x – 1)(x +3)
a) Calculer G pour x = – 4.
b) Développer et réduire G
c) Calculer G pour x = – 4 en utilisant le résultat du b)
d) Reprendre les questions a) et c) pour $x = \frac{1}{3}$

Réponses :
A = – 5x – 6 B = 5x + 59 C = 6x^2 – 39x – 2
D = 4x^2 + 2x + 23 E = x^2 +7x – 3 F = 3x^2 – 15x + 12
b) G = 3x^2 +4x + 1 a) et c) on obtient : 33 d) on obtient $\frac{8}{3}$

Exercice 3

Développer et réduire

A = (5x + 2)^2 B = (8x – 1)^2 C =(9x + 2)(9x – 2)
D = (6x – 5)^2 E = (7x – 4)(7x + 4) F = (4x + 3)^2
G = (x – 7)^2 + (3x + 2)^2 H = (5x + 4)^2 – (2x – 1)^2 I = (7x –3)(7x +3) – (3x + 4)^2
J = $\left(\frac{7}{3}x - \frac{1}{2}\right)^2$ K = (8x – 1)(x + 2) – (7x – 3)(5x + 2) L = 6(x – 4)^2
M = 5(2x – 1)(2x + 1) N = 5(3x + 4)^2– 3(5x+ 2)^2 O = (3x – 4)^2 – (x + 4)^2 + (x – 4)^2

Réponses
A = 25x^2 + 20x +4 B = 64x^2 –16x + 1 C = 81x^2 – 4
D = 36x^2 – 60x +25 E = 49x^2 – 16 F = 16x^2 + 24x + 9
G = 10x^2 –2x + 53 H =21x^2 + 44x + 15 I = 40x^2 – 24x –25
J = $-\frac{49}{9}x^2 - \frac{7}{3}x + \frac{1}{4}$ K = –27x^2 +16x + 4 L = 6x^2 – 48x + 96
M = 20x^2 – 5 N = -30x^2 +60x + 68 P = 9x^2 – 40x +16