

## Corrections

**Exercice n°1** - Version 1.0

Programme 1 :  $-7x + 4$

Programme 2 :  $(x + 3) \times (-7) = -7x - 21$

Programme 3 :  $(8x - 2) \times 2 = 16x - 4$

**Exercice n°2** - Version 2.0

Programme 1 :  $-5x + 9$

Programme 2 :  $(x - 2) \times 9 = 9x - 18$

Programme 3 :  $(2x - 5) \times 2 = 4x - 10$

**Exercice n°3** - Version 3.0

Programme 1 :  $-8x + 2$

Programme 2 :  $(x - 2) \times (-7) = -7x + 14$

Programme 3 :  $(2x + 9) \times 2 = 4x + 18$

**Exercice n°4** - Version 4.0

Programme 1 :  $-3x - 8$

Programme 2 :  $(x - 2) \times 2 = 2x - 4$

Programme 3 :  $(4x - 4) \times 2 = 8x - 8$

**Exercice n°5** - Version 1.0

$A = (6 + 2)x = 8x$

$B = -7 \times x \times x = -7 \times x^2$

$C = (7 + 9) \times x = 16x$

$D = 7 \times 9 \times x \times x = 63 \times x^2$

$E = 2x + 5x - 3 \times (-9) = (2 + 5)x + 27 = 7x + 27$

$F = 7 \times (-5y - 9) = 7 \times (-5)y + 7 \times (-9) = -35y - 63$

$G = 2a^2 + a \times (2 + 1) = 2a^2 + 3a$

$H = (3 - 6)x = (-3)x$

**Exercice n°6** - Version 2.0

$A = (9 + 8)x = 17x$

$B = 4 \times x \times x = 4 \times x^2$

$C = (6 + 3) \times x = 9x$

$D = 6 \times 3 \times x \times x = 18 \times x^2$

$E = 3x + 7x - 3 \times 9 = (3 + 7)x - 27 = 10x - 27$

$F = -8 \times (-3y - 2) = -8 \times (-3)y - 8 \times (-2) = 24y + 16$

$G = 2a^2 + a \times (1 + 1) = 2a^2 + 2a$

$H = (2 - 6)x = (-4)x$

**Exercice n°7** - Version 3.0

$A = (9 + 5)x = 14x$

$B = -3 \times x \times x = -3 \times x^2$

$C = (-5 - 5) \times x = -10x$

$D = -5 \times (-5) \times x \times x = 25 \times x^2$

$E = -9x - 9x + 2 \times (-7) = (-9 - 9)x - 14 = -18x - 14$

$F = -7 \times (8y + 7) = -7 \times 8y - 7 \times 7 = -56y - 49$

$G = 2a^2 + a \times (2 + 3) = 2a^2 + 5a$

$H = (2 + 8)x = (10)x$

**Exercice n°8** - Version 4.0

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

$B = -8 \times x \times x = -8 \times x^2$

$C = (3 + 6) \times x = 9x$

$D = 3 \times 6 \times x \times x = 18 \times x^2$

$E = 6x - 8x + 7 \times 3 = (6 - 8)x + 21 = -2x + 21$

$F = 9 \times (3y + 3) = 9 \times 3y + 9 \times 3 = 27y + 27$

$G = 1a^2 + a \times (1 + 3) = 1a^2 + 4a$

$H = (8 + 2)x = (10)x$

**Exercice n°9** - Version 1.0

$A = 5(x - 6) = 5x + 5 \times (-6) = 5x - 30$

$B = 7(7x + 4) = 7 \times 7x + 7 \times 4 = 49x + 28$

$C = y(-2 + 2y) = y \times (-2) + y \times 2y = -2y + 2y^2$

$D = 2t(-2t - 5) = 2t \times (-2)t + 2t \times (-5) = -4t^2 - 10t$

**Exercice n°10** - Version 2.0

$A = 5(x + 6) = 5x + 5 \times 6 = 5x + 30$

$B = 9(5x + 2) = 9 \times 5x + 9 \times 2 = 45x + 18$

$C = y(3 - 4y) = y \times 3 + y \times -4y = 3y - 4y^2$

$D = 2t(3t - 7) = 2t \times 3t + 2t \times (-7) = 6t^2 - 14t$

**Exercice n°11** - Version 3.0

$A = -2(x - 3) = -2x - 2 \times (-3) = -2x + 6$

$B = -2(-8x - 3) = -2 \times (-8)x - 2 \times (-3) = 16x + 6$

$C = y(-2 + 8y) = y \times (-2) + y \times 8y = -2y + 8y^2$

$D = 2t(-3t - 2) = 2t \times (-3)t + 2t \times (-2) = -6t^2 - 4t$

**Exercice n°12** - Version 4.0

$A = -7(x + 5) = -7x - 7 \times 5 = -7x - 35$

$B = -2(8x + 3) = -2 \times 8x - 2 \times 3 = -16x - 6$

$C = y(2 + 7y) = y \times 2 + y \times 7y = 2y + 7y^2$

$D = 3t(8t + 4) = 3t \times 8t + 3t \times 4 = 24t^2 + 12t$

**Exercice n°13** - Version 1.0

Factoriser les expressions suivantes.

$E = 7x \times 6 - 1 \times 6 = (7x - 1) \times 6$

$F = -18x + 6x = (-18 + 6) \times x = -12x$

$G = -2 \times x + 2x \times x = (-2 + 2x) \times x$

$H = -3x^2 - 9x^2 = (-3 - 9)x^2 = -12x^2$

**Exercice n°14** - Version 2.0

Factoriser les expressions suivantes.

$E = 3x \times 9 + 1 \times 9 = (3x + 1) \times 9$

$F = 42x + 7x = (42 + 7) \times x = 49x$

$G = -36 \times x + 9x \times x = (-36 + 9x) \times x$

$H = -2x^2 + 3x^2 = (-2 + 3)x^2 = 1x^2$

**Exercice n°15** - Version 3.0

Factoriser les expressions suivantes.

$E = 9x \times 9 - 1 \times 9 = (9x - 1) \times 9$

$F = 24x + 4x = (24 + 4) \times x = 28x$

$G = -3 \times x + 3x \times x = (-3 + 3x) \times x$

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

**Exercice n°16** - Version 4.0

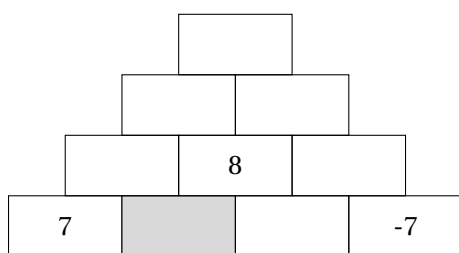
Factoriser les expressions suivantes.

$E = 8x \times 3 + 1 \times 3 = (8x + 1) \times 3$

$F = -35x + 5x = (-35 + 5) \times x = -30x$

$G = 32 \times x + 8x \times x = (32 + 8x) \times x$

$H = 5x^2 + 8x^2 = (5 + 8)x^2 = 13x^2$

**Exercice n°17**

1. Fait à gauche.
2. On peut mettre un nombre  $x$  quelconque dans la case grise, on trouve toujours 24 dans la case la plus haute. Voir à droite.

