Correction parcours fléché : Factorisation à l'aide d'un facteur commun

Factorise et réduis les expressions.

$$k \times a + k \times b = k(a+b)$$

$A = 8 \times x + 8 \times 4$

$B = 7 \times x + 7 \times 6$

$C = 6x - 24$

$D = 4x - 16$

$E = 5a + 15b$

$F = 3a + 12b$

$G = x^2 + 6x$

$H = x^2 + 11x$

$I = 7x^2 - 14x$

$J = 9x^2 - 27x$

$K = 16x + 16$

$L = 18x + 18$

$M = (x-5)(2x-1) + (x-5)(3x+7)$

$N = (x-7)(3x-2) + (x-7)(4x+8)$

$O = (3x+2)(2x-9) - (5x-7)(3x+2)$

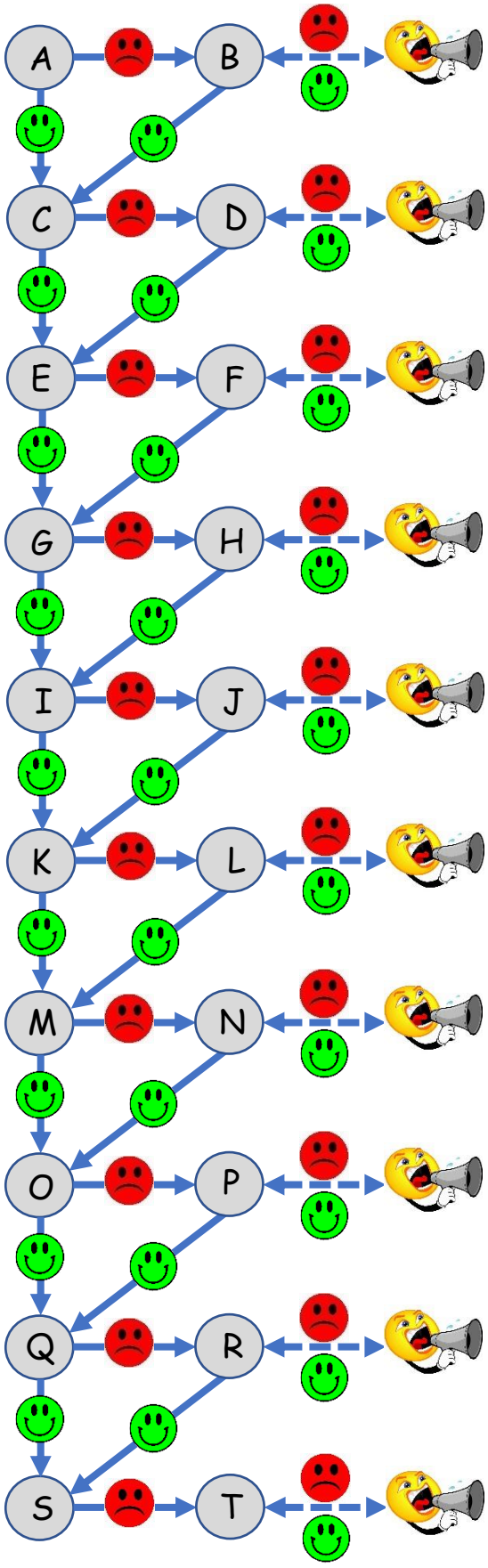
$P = (8x+5)(3x-4) - (10x-9)(8x+5)$

$Q = (x+4)(x-5) + (x+4)^2$

$R = (2x+7)(x-2) + (2x+7)^2$

$S = (7x+1) - (7x+1)(2x-6)$

$T = (4x-5) - (4x-5)(3x-7)$



$A = 8 \times x + 8 \times 4$

$A = 8(x + 4)$

$B = 7 \times x + 7 \times 6$

$B = 7(x + 6)$

$C = 6x - 24$

$C = 6 \times x - 6 \times 4$

$C = 6(x - 4)$

$D = 4x - 16$

$D = 4 \times x - 4 \times 4$

$D = 4(x - 4)$

$E = 5a + 15b$

$E = 5 \times a + 5 \times 3b$

$E = 5(a + 3b)$

$F = 3a + 12b$

$F = 3 \times a + 3 \times 4b$

$F = 3(a + 4b)$

$G = x^2 + 6x$

$G = x \times x + x \times 6$

$G = x(x + 6)$

$H = x^2 + 11x$

$H = x \times x + x \times 11$

$H = x(x + 11)$

$I = 7x^2 - 14x$

$I = 7x \times x - 7x \times 2$

$I = 7x(x - 2)$

$J = 9x^2 - 27x$

$J = 9x \times x - 9x \times 3$

$J = 9x(x - 3)$

$K = 16x + 16$

$K = 16 \times x + 16 \times 1$

$K = 16(x + 1)$

$L = 18x + 18$

$L = 18 \times x + 18 \times 1$

$L = 18(x + 1)$

$M = \underbrace{(x - 5)(2x - 1)}_{terme\ 1} + \underbrace{(x - 5)(3x + 7)}_{terme\ 2}$

$M = \underbrace{(x - 5)}_{k}\left[\underbrace{(2x - 1)}_{a} + \underbrace{(3x + 7)}_{b}\right]$

$M = (x - 5)\,(2x - 1 + 3x + 7)$

$M = (x - 5)\,(5x + 6)$

$N = \underbrace{(x - 7)(3x - 2)}_{terme\ 1} + \underbrace{(x - 7)(4x + 8)}_{terme\ 2}$

$N = \underbrace{(x - 7)}_{k}\left[\underbrace{(3x - 2)}_{a} + \underbrace{(4x + 8)}_{b}\right]$

$N = (x - 7)\,(3x - 2 + 4x + 8)$

$N = (x - 7)\,(7x + 6)$

$$O = \underbrace{(3x+2)(2x-9)}_{terme\ 1} - \underbrace{(5x-7)(3x+2)}_{terme\ 2}$$

$$O = \underbrace{(3x+2)}_{k}\left[\underbrace{(2x-9)}_{a} - \underbrace{(5x-7)}_{b}\right]$$

$$O = (3x+2)(2x-9-5x+7)$$

$$O = (3x+2)(-3x-2)$$

$$P = (8x+5)(3x-4) - (10x-9)(8x+5)$$

$$P = \underbrace{(8x+5)}_{k}\left[\underbrace{(3x-4)}_{a} - \underbrace{(10x-9)}_{b}\right]$$

$$P = (8x+5)(3x-4-10x+9)$$

$$P = (8x+5)(-7x+5)$$

$$Q = (x+4)(x-5) + (x+4)^2$$

$$Q = (x+4)(x-5) + (x+4)(x+4)$$

$$Q = \underbrace{(x+4)}_{k}\left[\underbrace{(x-5)}_{a} + \underbrace{(x+4)}_{b}\right]$$

$$Q = (x+4)(x-5+x+4)$$

$$Q = (x+4)(2x-1)$$

$$R = (2x+7)(x-2) + (2x+7)^2$$

$$R = (2x+7)(x-2) + (2x+7)(2x+7)$$

$$R = \underbrace{(2x+7)}_{k}\left[\underbrace{(x-2)}_{a} + \underbrace{(2x+7)}_{b}\right]$$

$$R = (2x+7)(x-2+2x+7)$$

$$R = (2x+7)(3x+5)$$

$$S = (7x+1) - (7x+1)(2x-6)$$

$$S = (7x+1) \times 1 - (7x+1)(2x-6)$$

$$S = \underbrace{(7x+1)}_{k}\left[\underbrace{1}_{a} - \underbrace{(2x-6)}_{b}\right]$$

$$S = (7x+1)\,(1-2x+6)$$

$$S = (7x+1)\,(-2x+7)$$

$$T = (4x-5) - (4x-5)(3x-7)$$

$$T = (4x-5) \times 1 - (4x-5)(3x-7)$$

$$T = \underbrace{(4x-5)}_{k}\left[\underbrace{1}_{a} - \underbrace{(3x-7)}_{b}\right]$$

$$T = (4x-5)\,(1-3x+7)$$

$$T = (4x-5)\,(-3x+8)$$