Feuille d'exercices sur les factorisations

Déterminez une forme factorisée de chacune des expressions suivantes.

Exercice 1 $A(x) = (2 - 10x)(5x - 4) + (2 - 10x)(10x - 8)$.

Exercice 2 $A(x) = -10(-7x - 9) - 10(6x + 7)$.

Exercice 3 $A(x) = (-5x - 3)(4x + 5) + (-5x - 3)(7x - 6)$.

Exercice 4 $A(x) = (-x - 9)(4x - 4) - (4x - 4)(5x - 7)$.

Exercice 5 $A(x) = (-4x - 1)(-2x - 8) - (-4x - 1)(-x - 4)$.

Exercice 6 $A(x) = 3(3x + 2)(9x - 2) + (7x + 1)(9x - 2)$.

Exercice 7 $A(x) = -4(x + 1)(10x + 7) - (9x - 1)(10x + 7)$.

Exercice 8 $f(x) = 64x^2 + 144x + 81$.

Exercice 9 $f(x) = 49x^2 - 126x + 81$.

Exercice 10 $f(x) = 4x^2 - 32x + 64$.

Exercice 11 $f(x) = 25x^2 - 100x + 100$.

Exercice 12 $f(x) = 81x^2 - 4$.

Exercice 13 $f(x) = \dfrac{x^2}{4} + \dfrac{7x}{2} + \dfrac{49}{4}$.

Exercice 14 $f(x) = \dfrac{25x^2}{9} - 10x + 9$.

Exercice 15 $f(x) = 81x^2 - \dfrac{1}{64}$.

Exercice 16 $A(x) = 2\left(100x^2 - 4\right) - 8(-10x - 2)(-7x - 5)$.

Exercice 17 $A(x) = -16x^2 - 72x - (10 - 7x)(-4x - 9) - 81$.

Exercice 18 $A(x) = 4(3 - 9x)(2x - 7) - 6\left(81x^2 - 9\right)$.