

## Correction de la feuille n°3 d'exercices

Exercice 1 : a)  $(3x+2)(4x+1) = 12x^2 + 3x + 8x + 2$   
 $= 12x^2 + 11x + 2$

b)  $(7x+3x)(4x-5) = 28x - 35 + 12x^2 - 15x$   
 $= 12x^2 + 13x - 35$

c)  $(x+6)(x+6) = x^2 + 12x + 36$

d)  $\left(\frac{3}{4}x + \frac{2}{3}\right)\left(\frac{1}{5} + 2x\right) = \frac{3}{20}x + \frac{3}{2}x^2 + \frac{2}{15} + \frac{6}{3}x$   
 $= \frac{3}{2}x^2 + \frac{39}{60}x + \frac{2}{15}$

## Exercice 2

①

	$5x$	$-1$
$-2x$	$-10x^2$	$+2x$
$-3$	$-15x$	$+3$

②  $(5x-1)(-2x-3)$   
 $= -10x^2 - 15x + 2x + 3$   
 $= -10x^2 - 13x + 3$

Exercice 3 a)  $(x-2)(3x+1) = 3x^2 + 10x - 6x - 2$   
 $= 3x^2 - 5x - 2$

b)  $(6-3x)(7x-5) = 42x - 30 - 21x^2 + 15x$   
 $= -21x^2 + 57x - 30$

c)  $(-x+3)(x-3) = -x^2 + 3x + 3x - 9$   
 $= -x^2 + 6x - 9$

d)  $(-2-3x)(-4-5x) = 8 + 10x + 12x + 15x^2$   
 $= 15x^2 + 22x + 8$

## Exercice 4

$$(x+3)^2 \rightarrow x^2 + 6x + 9$$

$$(x-3)^2 \rightarrow x^2 - 6x + 9$$

$$(x+2)(x+3) \rightarrow x^2 + 5x + 6$$

$$x(x+3) \rightarrow x^2 + 3x$$

$$x(x-3) \rightarrow x^2 - 3x$$

$$(x+3)(x-3) \rightarrow x^2 - 9$$