

correction de la feuille 2 d'exercices  
(deuxième partie)

Exercice 3 a)  $(x+6)^2 = x^2 + 12x + 36$

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

c)  $(4+8x)^2 = 16 + 64x + 64x^2$

d)  $(6-2x)^2 = 36 - 24x + 4x^2$

e)  $(5+9x)(5-9x) = 25 - 81x^2$

f)  $(7+4x)(7-4x) = 49 - 16x^2$

Exercice 4 a)  $25 - x^2 = ER3 = (5-x)(5+x)$

b)  $x^2 + 2x + 1 = ER1 = (x+1)^2$

c)  $49x^2 - 100 = ER3 = (7x-10)(7x+10)$

d)  $4x^2 - 12x + 9 = ER2 = (2x-3)^2$

e)  $16x^2 - 16 = ER3 = (4x-4)(4x+4)$

f)  $64 - 48x + 9x^2 = (8-3x)^2$  (ER2)

Exercice 5

①  $42^2 = (40+2)^2 = 40^2 + 2 \times 40 \times 2 + 2^2$   
 $= 1600 + 160 + 4 = \boxed{1764}$

② a)  $103^2 = (100+3)^2 = 100^2 + 2 \times 100 \times 3 + 3^2$   
 $= 10000 + 600 + 9 = \boxed{10609}$

b)  $31^2 = (30+1)^2 = 30^2 + 2 \times 30 \times 1 + 1^2$   
 $= 900 + 60 + 1 = \boxed{961}$

c)  $24^2 = (20+4)^2 = 20^2 + 2 \times 20 \times 4 + 4^2$   
 $= 400 + 160 + 16 = \boxed{576}$