

MATHS 1 - e-01 - CORRIGE

1. $25x^{2m-4}y^2 + 20x^{m-1}y^{3m} + 4x^2y^{6m-2}$

2. $9x^{8m-2}y^{4m+6}z^{4m}$

3. $15x^2 - 20xy - 6xy + 8y^2 - [6x^2 + 9x - 14xy - 21y - (12x^2 - 8xy + 3xy - 2y^2)]$
 $= 15x^2 - 26xy + 8y^2 - (6x^2 + 9x - 14xy - 21y - 12x^2 + 8xy - 3xy - 2y^2)$
 $= 15x^2 - 26xy + 8y^2 - 6x^2 - 9x + 14xy + 21y + 12x^2 - 8xy + 3xy + 2y^2$
 $= 21x^2 - 9x - 17xy + 6y^2 + 21y$

4. $49x^4y^6 - 70x^3y^5 + 25x^2y^4$

5. $5x^3 - \{-2x^2 - [4x - 7 - 2x^2 - 3x - 4x^3] - 5x^2 + 6\} - 3x$
 $= 5x^3 - \{-2x^2 - 4x + 7 + 2x^2 + 3x + 4x^3 - 5x^2 + 6\} - 3x$
 $= 5x^3 + 2x^2 + 4x - 7 - 2x^2 - 3x - 4x^3 + 5x^2 - 6 - 3x$
 $= x^3 + 5x^2 - 2x - 13$

6. $15x^2 - 10x - 12x + 8 - (8x^2 - 2x + 12x - 3) - 7x^2 + 373 = 0$
 $15x^2 - 22x + 8 - 8x^2 - 10x + 3 - 7x^2 + 373 = 0$
 $- 32x + 384 = 0$
 $- 32x = -384$
 $x = \{12\}$

7. $8x - 8\{8x - 8[8x - 64x + 64 - 8x] - 64x + 64\} - 8x = 20'000$
 $8x - 8\{8x - 64x + 512x - 512 + 64x - 64x + 64\} - 8x = 20'000$
 $8x - 64x + 512x - 4096x + 4096 - 512x + 512x - 512 - 8x = 20'000$
 $- 3'684x + 3'584 = 20'000$
 $- 3'648x = 16'416$
 $x = \{-9/2\}$