Factoriser

exercice :

$F = \underbrace{25t^2}_{a^2} - \underbrace{36}_{b^2}$.

$\Rightarrow b = 6$

$\Rightarrow a = 5t$

$$(a-b)(a+b) = a^2 - b^2$$

$F = (5t-6)(5t+6)$.

$$G = (2t-7) - (5t+1)(2t-7).$$

1x

$$= (2t-7)\left[1 - (5t+1)\right].$$

$$= (2t-7)(\cancel{1} - 5t - \cancel{1})$$

$$= -5t(2t-7).$$

$$H = \underbrace{(x-4)}_{a}^2 - \underbrace{(2x-1)}_{3}^2.$$

$$= \left[(x-4) - (2x-1)\right]\left[(x-4) + (2x-1)\right]$$

⚠

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

$$= (-x-3)(3x-5).$$

. $A = \underbrace{49x^2}_{a^2} - \underbrace{36}_{b^2}$.

$a = 7x \qquad b = 6$

$A = (7x - 6)(7x + 6)$.

. $B = \underbrace{4x^2}_{a^2} - \underbrace{16}_{b^2}$.

$a = 2x \qquad b = 4$

$B = (2x - 4)(2x + 4)$.

. $C = \underbrace{9}_{a^2} - \underbrace{x^2}_{3^2}$

$a = 3 \qquad b = x$

$= (3 - x)(3 + x).$

. $D = 4x^2 - 81.$

$= (2x - 9)(2x + 9).$

. $E = \underbrace{(x+1)^2}_{a^2} - \underbrace{25}_{3^2}$

$\Rightarrow a = x + 1 \qquad b = 5$

$= (x + 1 - 5)(x + 1 + 5)$

$= (x - 4)(x + 6).$

. $F = (\underbrace{2x-1}_{a})^2 - (\underbrace{3x+2}_{3})^2$

$= ((2x-1)-(3x+2))(2x+1+3x+2)$

$= (2x-1-3x-2)(5x+3).$

$= (-x-3)(5x+3)$

. $G = (4x-3)^2 - 1$

$= (4x-3-1)(4x-3+1)$

$= (4x-4)(4x-2).$

. $H = (6x+3)^2 - 16$.

a

$b^2 \Rightarrow b = 4$

$= (6x+3-4)(6x+3+4)$

$= (6x-1)(6x+7)$.