

Exercices supplémentaires FACTORISATION

MÉLI-MÉLO

$a^2 + 18a + 81$ $\begin{matrix} \swarrow & \searrow \\ (a)^2 & (9)^2 \\ (a+9)^2 \end{matrix}$	$d^2 - 2500$ $\begin{matrix} \swarrow & \searrow \\ (d)^2 & (50)^2 \\ (d-50)(d+50) \end{matrix}$	$mn - 14 + 7m - 2n$ $\begin{matrix} \underbrace{mn + 7m} & - & \underbrace{2n - 14} \\ m(n+7) & - & 2(n+7) \\ (n+7)(m-2) \end{matrix}$
$4c^4 - 36c^2$ $4c^2(c^2 - 9)$ $4c^2(c-3)(c+3)$	$50x^2y - 75xy - 500y$ $25y(2x^2 - 3x - 20)$ $25y(2x^2 - 8x + 5x - 20)$ $25y(2x(x-4) + 5(x-4))$ $25y(2x+5)(x-4)$ <p style="font-size: small;"> $P = -40$ $S = -3$ $m = -8$ $n = +5$ </p>	$3f^2 - 32f - 48$ $3f^2 - 36f + 4f - 48$ $3f(f-12) + 4(f-12)$ $(f-12)(3f+4)$ <p style="font-size: small;"> $P = -144$ $S = -32$ $m = -36$ $n = +4$ </p>
$4x^2 - 17x + 4$ $4x^2 - x - 16x + 4$ $x(4x-1) - 4(4x-1)$ $(x-4)(4x-1)$ <p style="font-size: small;"> $P = 16$ $S = -17$ $m = -1$ $n = -16$ </p>	$25d^2 - 30de + 9e^2$ $\begin{matrix} \swarrow & \searrow \\ (5d)^2 & (3e)^2 \\ (5d-3e)^2 \end{matrix}$	$-49e^2 + 81$ $81 - 49e^2$ $\begin{matrix} \swarrow & \searrow \\ (9)^2 & (7e)^2 \\ (9-7e)(9+7e) \end{matrix}$
$2x^2 + 11x - 30$ $2x^2 - 4x + 15x - 30$ $2x(x-2) + 15(x-2)$ $(2x+15)(x-2)$ <p style="font-size: small;"> $P = -60$ $S = +11$ $m = 15$ $n = -4$ </p>	$6x^2 + 35x - 6$ $6x^2 + 36x - x - 6$ $6x(x+6) - 1(x+6)$ $(6x-1)(x+6)$ <p style="font-size: small;"> $P = -36$ $S = 35$ $m = 36$ $n = -1$ </p>	$x^2 - 21x + 108$ $(x-9)(x-12)$ <p style="font-size: small;"> $P = 108$ $S = -21$ $m = -9$ $n = -12$ </p>