4) Decompose into two brackets:

a) $x^2 + 4x - 5 = (x + 5)(x - 1)$ because: $5 + (-1) = 4 \quad 5 \cdot (-1) = -5$

b) $y^2 - y - 20 = (y + 4)(y - 5)$ because: $4 + (-5) = -1 \quad 4 \cdot (-5) = -20$

c) $3p^2 - p - 2 = (3p + 2)(p - 1)$

The number of possibilities is bounded since the leading summands must be 3p and p, and the rear summands have to be 1 and 2.
The position and the sign can be derived by trial and error.

d) $a^2 - 10ab + 16b^2 = (a - 2b)(a - 8b)$

Even if the quadratic term $16b^2$ is in the rear, it does not follow $(a - 4b)^2$!
In this case, the mixed term would be $-8ab$ and not $-10ab$.