

## FACTORISING BY GROUPING PAIRS

This method is used when there are **four terms** in the expression.

### Example 4

Factorise:

(a)  $bx + by + cx + cy$

(b)  $m^2 - mn - 2m + 2n$

### Solution

Group in pairs:

(a)  $\underbrace{bx + by} + \underbrace{cx + cy}$

(b)  $\underbrace{m^2 - mn} - \underbrace{2m + 2n}$

Take out common factor:

$= b(x + y) + c(x + y)$

$= m(m - n) - 2(m - n)$

Take out common factor:

$= (x + y)(b + c)$

$= (m - 2)(m - n)$