More Quadratic Factorising

Ex1

$2x^2 - 3x - 5$

2×-5
$= -10$

$+1 \quad -10$
$-1 \quad +10$
$+2 \quad -5$ ✓

$2x^2 + 2x - 5x - 5$

$2x(x+1) - 5(x+1)$

$(x+1)(2x-5)$

Ex2

$4x^2 - x - 5$

4×-5
$= -20$

$+4 \quad -5$ ✓
$-4 \quad +5$

$4x^2 + 4x - 5x - 5$

$4x(x+1) - 5(x+1)$

$(x+1)(4x-5)$

Exercise

1)

$2x^2 + 9x + 10$

2×10
$= 20$

$+4 \quad +5$

$2x^2 + 4x + 5x + 10$

$2x(x+2) + 5(x+2)$

$(x+2)(2x+5)$

2)

$5x^2 + 13x + 6$

$5 \times 6 = 30$

$+10 \quad +3$

$5x^2 + 10x + 3x + 6$

$5x(x+2) + 3(x+2)$

$(x+2)(5x+3)$

3)

$3x-3$

$= -9$

$+9 \quad -1$

$3x^2 + 8x - 3$

$3x^2 + 9x - x - 3$

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

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

4)

$2x-4 = -8$

$-8 \quad +1$

$2x^2 - 7x - 4$

$2x^2 - 8x + x - 4$

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

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

5)

$10x-3 = -30$

$+6 \quad -5$

$10x^2 + x - 3$

$10x^2 + 6x - 5x - 3$

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

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