

How do we factor?

Do Now Factor

1)  $x^2 - 2x - 3$

~~$= 3, +$~~   
 $= (x-3)(x+1)$

2)  $x^2 - 9$

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

3)  $2x^2 - 3x + 1$

$= 2x^2 - 2x - 1x + 1$   
 $= 2x(\underline{x-1}) - 1(\underline{x-1})$   
 $= (x-1)(2x-1)$

$$4) x^2 - 5x + 6$$

$$(-2, -3)$$

$$(x-2)(x-3)$$

$$5) x^2 - 1$$

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

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

$$\begin{array}{r} 6 \\ \times 1 \\ \hline -3, -2 \end{array}$$

$$= 3x^2 - 3x - 2x + 2$$

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

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

$$7) x^2 + 7x - 8$$

-1, 8

$$(x-1)(x+8)$$

$$8) 4x^2 - 1$$

$$9) \overbrace{9x^2 - 12x + 4}^{36}$$

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

$$= 9x^2 - 6x - 6x + 4$$

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

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

Pg 26 & 27

9-36

mult. of 3