ex. 1 decimals

$$x^2 - 1.5x + 0.5$$

- want integers to factor
- mult by a power of 10 or change to fractions
- x2 in this question will eliminate decimals!!

$$= \frac{1}{2}(2x^2 - 3x + 1)$$

$$= \frac{1}{2}(2x - 1)(x - 1)$$

2. fractions

$$3x\,x^2 - 3x\frac{17x}{3} - 2x^3$$

remove $\frac{1}{3}$

factor $\frac{1}{3}$ meaning x all 3

$$= \frac{1}{3}(3x^2 - 17x - 6)$$

$$= \frac{1}{3}(3x + 1)(x - 6)$$

⊕ -17 ⊗ -18

-18, 1

3. $10x(x^2 + 1.4x - 1.2)$

$$= \frac{1}{10}(10x^2 + 14x - 12)$$

$$= \left[\frac{1}{10}\,2\right](5x^2 + 7x - 6)$$

⊕ 7 ⊗ -30

1, 30

$= \frac{1}{10}\left[2(5x^2 + 1x - 6)\right]$

$= \frac{1}{5}(5x - 3)(x + 2)$

⊕ 7 ⊗ −30
1, 30
2, 15
−3, 10
5, 6

4. difference of squares

a) $4x^2 - 9y^2$

$(2x + 3y)(2x - 3y)$

b) $(3x-4)^2 - (2y-1)^2$

$A^2 - B^2$

$= (A - B)(A + B)$

$= [(3x-4) - (2y-1)][(3x-4) + (2y-1)]$

$= [3x - 4 - 2y + 1][3x - 4 + 2y - 1]$

$= [3x - 3 - 2y][3x - 5 + 2y]$

$[3x - 2y - 3][3x + 2y - 5]$

ex. 4 trinomials

ex. 4 Trinomials

$$(x+2)^2 + (x+2) - 2$$

$$= A^2 + A - 2$$

$$= (A - 1)(A + 2)$$

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

$$= (x+1)(x+4)$$

$x+2 = A$

ax^2+bx+c

$\oplus 1 \otimes -2$

$-1, 2$

p194 # 3-6 (4 each)
9, 10 (4 each)
16 (2)