

1.4 Factoring Trinomials

number 1 rule when factoring: factor out common monomials first

factoring trinomials of the form $x^2 + bx + c$

- What two numbers add to get **b** and multiply to get **c**

$$(x + \underline{\quad})(x + \underline{\quad})$$

- EX: $b^2 - 13b + 42$

$$(b - 7)(b - 6)$$

..

-7, -6

Factoring trinomials of the form $ax^2 + bx + c$

1. Find two numbers that multiply to get **ac** and add to get **b**
2. Rewrite the middle term of the trinomial using these two numbers and then Regroup $(\underline{ax^2 + _x} + \underline{_x + c})$
3. Factor groups and rewrite

EX: $2x^2 + 11x - 21$

1. $ac = -42$ $b = 11$

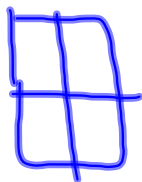
$14 \cdot -3 = -42$ $14 + -3 = 11$

2. $2x^2 + \underline{14x - 3x} - 21$

3. $2x^2 + 14x$ - $3x - 21$

$2x(x+7) - 3(x+7)$

$(2x-3)(x+7)$ ★



p 48

8-22, 30-48, 60-70 : evens

odds Extra credit