Overall Factoring Rules

1. Factor out any Greatest Common Factors

remember Special Polynomial Factors : (opposites)

$(b-a) = -1(a-b)$ and $-b+a = -1(b-a)$

2. How many terms?

4 terms

consider:

Factor by grouping

(GCF from pairs)

Polynomial Factors

3 terms

ax^2+bx+c

$a \cdot c$ that add to b

rewrite as 4 terms *

$ax^2 + \bigcirc x + \bigcirc x + c$

* if $a = 1$ only 1 step:

$(x \ \bigcirc)(x \ \bigcirc)$

2 terms

is it $a^2 - b^2$?

$(a+b)(a-b)$

good times bad times

remember: a^2+b^2

Forever