

Mr. Fahrenbacher
Algebra 12-22
AC Factoring Plan

1) Have students do 3 probs at board (all factoring)

(a) $12x^2 + 6x$

(b) $6(x - 4) + 3x(x - 4)$

(c) $x^3 - 2x^2 + 8x - 16$

2) Puzzle

3) $(x + 4)(2x + 3) = 2x^2 + 3x + 8x + 12 = 2x^2 + 11x + 12$

Factor in the form $ax^2 + bx + c$

EX: $2x^2 + 11x + 12$

Calculate $AC = 2 \cdot 12 = 24$

Factors of AC?

1, 24

2, 12

3, 8

4, 6

Find a pair of factors that add up to B.

3, 8

Split the b term

$2x^2 + 3x + 8x + 12$

Factor in pairs

$x(2x + 3) + 4(2x + 3)$

$(2x + 3)(x + 4)$

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

EX: $9x^2 - 13x - 10$

EX: $15x^2 - 2x - 8$

EX: $x^2 + 2x + 1$