Chapter 4 - Factoring Day 2 Wks

Example 1 Factor by grouping

5. $2x^2 - 8x + 3x - 12$

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

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

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Example 1 Factor by grouping

6. $x^2 + 3x + 5x + 15$

$x(x+3) + 5(x+3)$

$(x+3)(x+5)$

$x^2 + 8x + 15$

3 5

$(x+3)(x+5)$

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Example 1 Factor by grouping

7. $10x^2 - 16x + 25x - 40$

$2x(5x-8)+5(5x-8)$

$(5x-8)(2x+5)$

12. $8r^3 - 64r^2 + r - 8$

$8r^2(r-8)+1(r-8)$

$(r-8)(8r^2+1)$

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Example 2 Factor completely

20. $2x^2 + 9x + 10$

$a=2$ $c=10$

$A \cdot C = 2 \cdot 10 = 20$

4 5

$2x^2+4x+5x+10$

$2x(x+2)+5(x+2)$

$(x+2)(2x+5)$

ax^2+bx+c

$a \cdot c =$

$(x+2)(2x+5)$

$2x^2+5x+4x+10$

$2x^2+9x+10$

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Example 2 Factor completely

22. $5x^2 + 7x - 6$

$a=5 \quad c=-6$

$A \cdot C = -30$

$10 \quad -3$

$3 \quad -10$

$5x^2+10x-3x-6$

$5x(x+2)-3(x+2)$

$(x+2)(5x-3)$

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Example 2 Factor completely

24. $3x^2 - 14x - 24$

$A \cdot C = 3 \cdot -24 = -72$

$36 \cdot -2$

$18 \cdot -4$

$4 \cdot -18$

$3x^2 + 4x - 18x - 24$

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

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

30. $2x^2 - 11x + 14$

$AC = 28$

$-4 \quad -7$

$2x^2 - 4x - 7x + 14$

$2x(x-2) - 7(x-2)$

$(x-2)(2x-7)$