

Journal Entry:

Multiply:

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

FOIL

$x^2 + 4x - 2x - 8$

What process did you use? What method have you learned that helps multiply binomials?

$x^2 + 2x - 8$

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### Section 4-4 Factoring Quadratic Expression

Students will be able to:

- find common and binomial factors
- factor special quadratics

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Factor:

1.  $x^2 + 14x + 40$

$(x+4)(x+10)$

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

$(x-5)(x-6)$

3.  $-x^2 + 14x + 32 =$

$-1(x^2 - 14x - 32) = -1(x+2)(x-16)$

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Factor:

$7n^2 - 21$

$7(n^2 - 3)$

$9x^2 + 9x - 18$

$9(x^2 + x - 2) = 9(x+2)(x-1)$

$4x^2 + 8x + 12$

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

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Factor:

$4x^2 + 7x + 3$

$(x+1)(4x+3)$

$2x^2 - 7x + 6$

$(2x-3)(x-2)$

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A perfect square trinomial is a trinomial that is the square of a binomial.

$x^2 + 14x + 49 = (x+7)^2$

$x \quad 7$

Factor:

$x^2 + 20x + 100 = (x+10)^2$

$x \quad 10$

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Perfect Square Trinomial:

$$a^2 + 2ab + b^2 = (a + b)^2$$

$$a^2 - 2ab + b^2 = (a - b)^2$$

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Factor:

$$64x^2 - 16x + 1$$

$$8x \quad 1$$

$$(8x - 1)^2$$

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Difference of 2 squares:

$$a^2 - b^2 = (a + b)(a - b)$$

Factor:

$$x^2 - 25 = (x - 5)(x + 5)$$

$$49x^2 - 1 = (7x + 1)(7x - 1)$$

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Hwk:

pg. 221 - 223

#14 - 46(4th), 52, 56 - 72 (4th),

74 - 86 evens, 92

Quiz Monday over 4.1-4.4

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