

Announcement:

Unit Test (Chapter 8 and 9) -
Monday 5/14

Factoring Polynomial Worksheets Review:

$$2x^2 + x - 15 = 0$$

1, 2

1, 2

1, 2

1, 2

1, 2

1, 2

-1, 15

1, -15

15, -1

-15, 1

+3, 5

+1

$$(x+3)(2x-5)=0$$

$$x+3=0$$

$$2x-5=0$$

$$x=-3 \text{ or } x=\frac{5}{2}$$

$$\frac{3x^2 - 15x + 18}{3} = \frac{0}{3}$$

$$3(x^2 - 5x + 6)$$

$$3(x - 2)(x - 3) = (3x - 6)(x - 3)$$
$$= (x - 2)(3x - 9)$$

$$3x - 6 = 0$$
$$3x = 6$$
$$x = 2$$

$$x^2 - 5x + 6 = 0$$

$$(x - 2)(x - 3) = 0$$

$$x = 2 \text{ or } x = 3$$

$$3x - 9 = 0$$
$$3x = 9$$
$$x = 3$$

$$\frac{5x^2 - 10x - 75 = 0}{5} \quad \frac{5}{5}$$

$$x^2 - 2x - 15 = 0$$

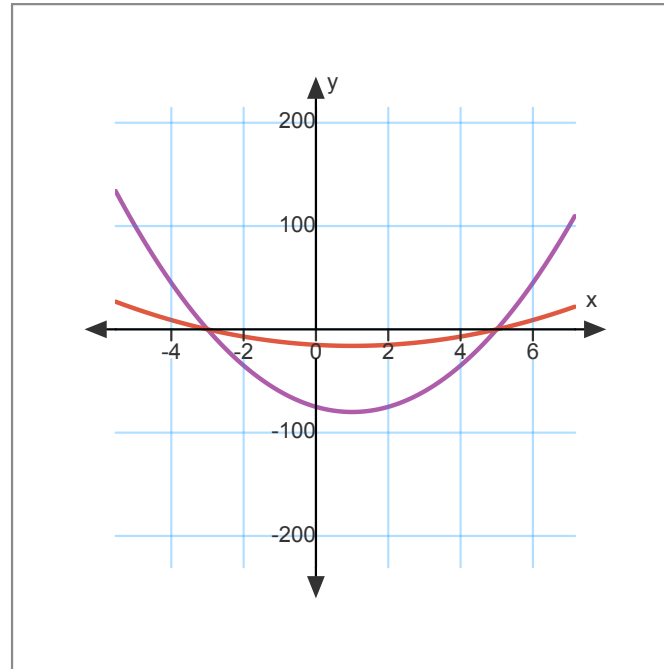
$$(x+3)(x-5) = 0$$

$$x = -3 \text{ or } x = 5$$

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

$$5x^2 - (10x) - 75$$

$$x^2 - (2x) - 15$$



$$15y^2 + 29y + 8$$

3,5	4,2	= 26
3,5	2,4	= 22
3,5	1,8	= 29

$$(3y+1)(5y+8)$$

Special Patterns when Factoring Polynomials:

$$x^2 - q = (x - a)(x + a) \text{ --- Sometimes!}$$

$$x^2 - 16 = (x + 4)(x - 4)$$

Look at C, A

perfect square?

$$\begin{array}{l} 1, 1 \\ 1, 16 \\ 2, 8 \\ 4, 4 \end{array}$$

$$x^2 + bx + c = (x + q)^2 \text{ --- Sometimes!}$$

$$x^2 + 12x + 36 = (x + 6)(x + 6)$$

Look at C

perfect squares

$$x^2 + 13x + 36$$

$$(x + 4)(x + 9)$$

no special pattern

Pull out a GCF from a trinomial --- Sometimes!
(or multiply by a constant)

$$6x^2 + 12x - 48 = 6(x^2 + 2x - 8)$$

$$6(x + 4)(x - 2)$$

Look for common factors or
common denominators

$$16. \frac{8a^2 - 72}{8} = 0$$

$$a^2 - 9 = 0$$

$$(a+3)(a-3) = 0$$

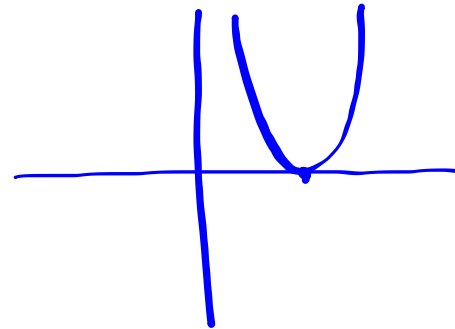
$$a = -3 \text{ or } a = 3$$

$$18. \frac{-4y^2 + 32y - 64}{-4} = 0$$

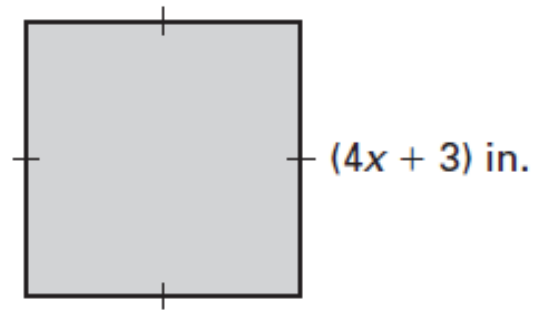
$$y^2 - 8y + 16 = 0$$

$$(y-4)(y-4) = 0$$

$$y = 4 \quad \cancel{y = 4}$$



26. Area = 225 in.^2



Homework:

p. 596, ~~4-21~~, 23-37 odd, ~~43-47 odd~~, 59

Homework:

p. 603, 3-18 by 3, 25-37 by 3, 51