

Warm-up 4/6/17

Find the exact solutions.

$$(x - 6)^2 = 72$$

$$x - 6 = \pm \sqrt{72}$$

$$x = 6 \pm 6\sqrt{2}$$

$$\sqrt{72}$$

$$\sqrt{36 \cdot 2}$$

Pg. 1012-1013

1a

$$0 = x^2 + 5x + 4$$

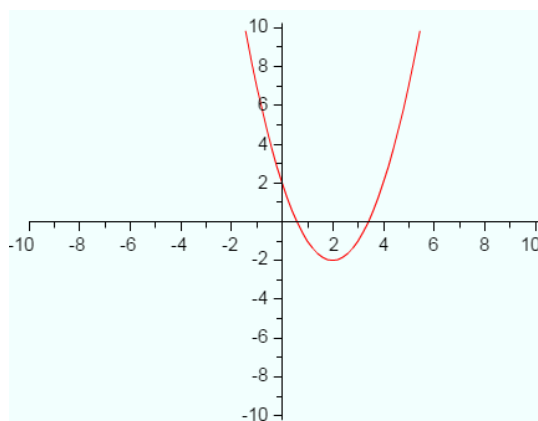
$$0 = (x + 1)(x + 4)$$

$$x + 1 = 0 \quad x + 4 = 0$$

$$x = -1 \quad x = -4$$

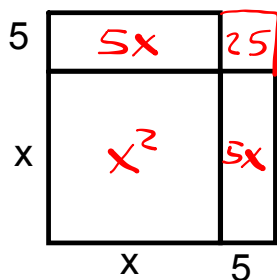
b

3a



Pg. 1014

2



$$x^2 + 5x + 5x + 25$$

$$x^2 + 10x + 25$$

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

$$(x+5)^2$$

Pg. 1014

3a

$$x^2 + 8x + \left(\frac{8}{2}\right)^2$$

$$x^2 + 8x + 16$$

$$(x+4)^2$$

b

$$x^2 + 5x + \left(\frac{5}{2}\right)^2$$

$$x^2 + 5x + \frac{25}{4}$$

$$\left(x + \frac{5}{2}\right)^2$$

Pg. 1016

$$x^2 - 4x + 2 = 0$$

$$x^2 - 4x + 4 = -2 + 4$$

$$(x - 2)^2 = 2$$

$$2 + 1.41 = 3.41 \quad x - 2 = \pm \sqrt{2}$$

$$2 - 1.41 = .59 \quad x = 2 \pm \sqrt{2}$$

Pg. 1017

8a

b

$$x^2 - 6x + 4 = 0$$

$$x^2 - 6x + 9 = -4 + 9$$

$$(x - 3)^2 = 5$$

$$x - 3 = \pm \sqrt{5}$$

$$x = 3 \pm \sqrt{5}$$

$$x = 3 + 2.23$$

$$x = 3 - 2.23$$

$$x = 5.23, .77$$

$$x^2 - 12x + 6 = 0$$

$$x^2 - 12x + 36 = -6 + 36$$

$$(x - 6)^2 = 30$$

$$x - 6 = \pm \sqrt{30}$$

$$x = 6 \pm \sqrt{30}$$

$$x = 6 + 5.48$$

$$x = 6 - 5.48$$

$$x = 11.48, .52$$

Pg. 1018  
11a

$$y = x^2 + 8x - 9$$

$$y = (x^2 + 8x + 16) - 9 - 16$$

$$y = (x + 4)^2 - 25$$