

Warm-up 3/7/17

Use the distributive property to simplify each function.

$$1. f(x) = -x(x+10) = -x^2 - 10x$$

$$2. f(x) = -8x(11-x) = -88x + 8x^2 = 8x^2 - 88x$$

$$3. f(x) = -6(x-4) = -6x + 24$$

$$4. f(x) = 7(x+1) = 7x + 7$$

Pg. 886-887

1-5

$$\begin{array}{r} 10x + 100 \\ 10(x + 10) \end{array} \quad \begin{array}{r} 50 - x \\ -(x - 50) \end{array}$$

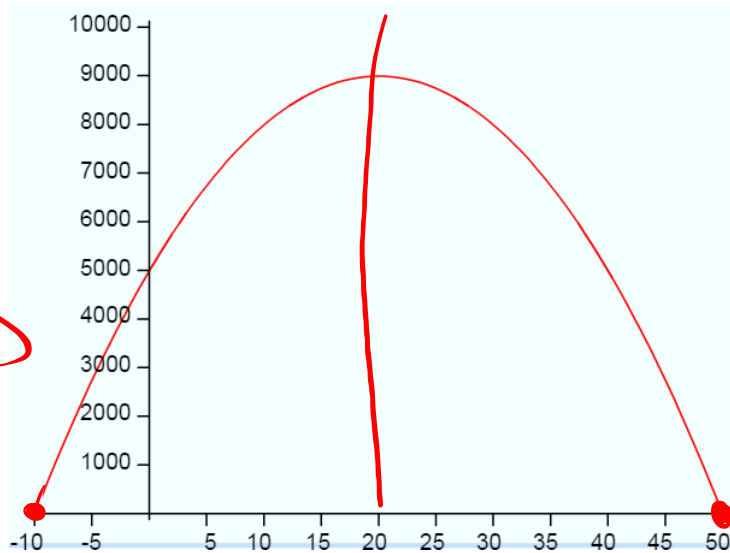
$$\begin{array}{r} 10(x+10) \cdot -(x-50) \\ -10(x+10)(x-50) \end{array}$$

Pg. 888

6-8

x-int.  $(-10, 0)$   
 $(50, 0)$

y-int.  $(0, 5000)$



Pg. 889-890

1-3

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

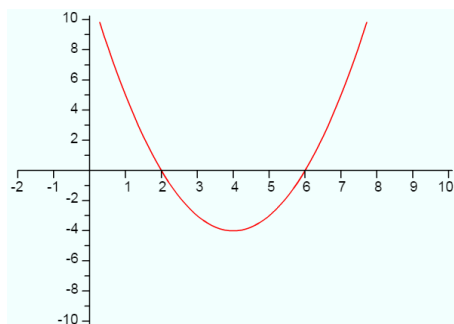
$$(x+3)(x-1)$$

$$(x-0)(x-5)$$

$$x(x-5)$$

Pg. 891

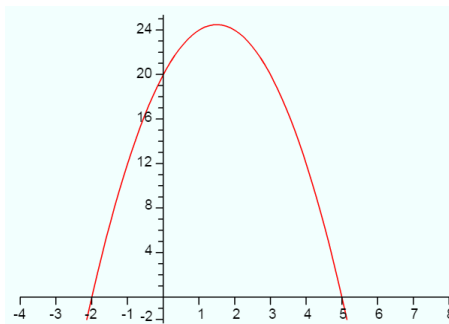
5



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

zeros

$$(2, 0) \quad (6, 0)$$



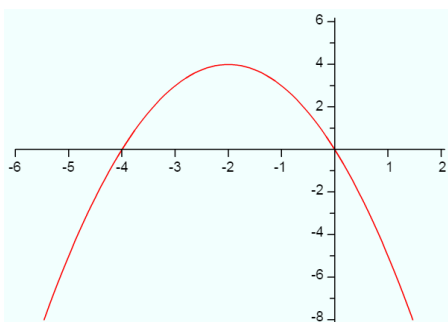
$$r(x) = -2x^2 + 6x + 20 = -2(x+2)(x-5)$$

$$(-2, 0)$$

$$(5, 0)$$

Pg. 891

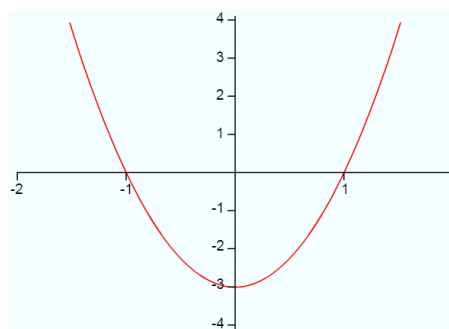
5



$$w(x) = -x^2 - 4x = -(x-0)(x+4)$$

$$(-4, 0) \quad = -x(x+4)$$

$$(0, 0)$$



$$c(x) = 3x^2 - 3 = 3(x+1)(x-1)$$

$$(-1, 0)$$

$$(1, 0)$$

Pg. 892

6.

a.  $(2, 0)$   
 $(7, 0)$

b.  $x(2x+6)$   $(0, 0)$   
 $2x(x+3)$   $(-3, 0)$

c.  $(x+1)(5-x)$   $(-1, 0)$   
 $(x+1)(-x+5)$   $(5, 0)$   
 $-(x+1)(x-5)$

d.  $(-9-3x)(x+4)$   $(-4, 0)$   
 $-3(x+3)(x+4)$   $(-3, 0)$