Math 20-2

Objectives:

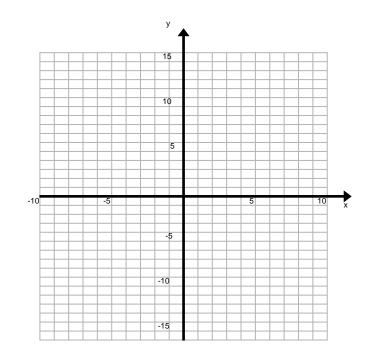
- Graph a quadratic in the form y = a(x r)(x s)
- Find the x-intercepts of a quadratic in the form y = a(x r)(x s)
- Find the vertex of a quadratic in the form y = a(x r)(x s)

Examples:

- 1. Graph and find the intercepts and find the vertex:
 - a) y = (x 2)(x 4)

Find points to plot:

X	Y



1. Graph and find the intercepts and find the vertex:

b)
$$y = (x + 5)(x + 1)$$

Find points to plot:

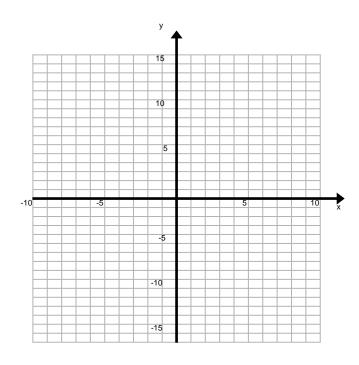
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c) y = -(x+3)(x-1)

Find points to plot:

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X	Y						



• What is the pattern for finding the x-intercepts of a quadratic in the form y = a(x - r)(x - s)

• What is the pattern for finding the vertex of a quadratic in the form y = a(x - r)(x - s)

2. Find the x-intercepts and the vertex of:

a)
$$y = (x - 6)(x + 2)$$

b)
$$y = 2(x - 6)(x + 2)$$

2. Find the x-intercepts and the vertex of:

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

d)
$$y = -\frac{1}{2}(x+8)(x-4)$$