Math 20-2

Objectives:

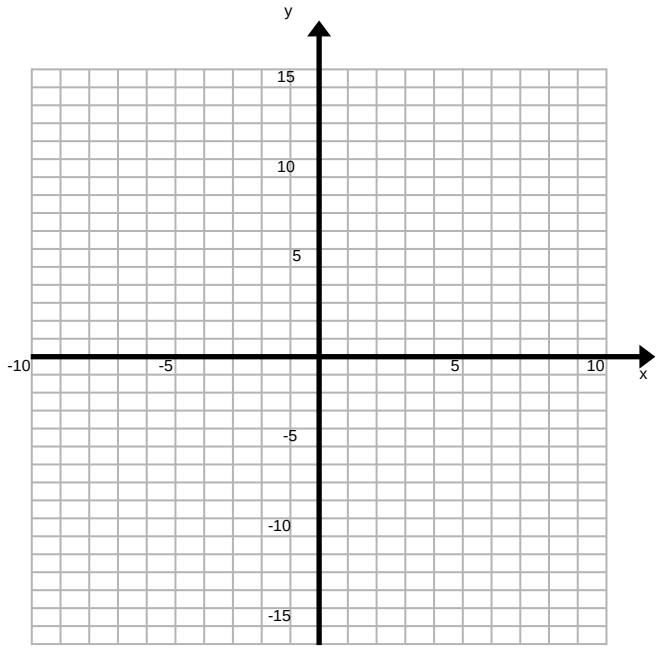
- Graph a quadratic in the form $y = a(x - r)(x - s)$
- Find the x-intercepts of a quadratic in the form $y = a(x - r)(x - s)$
- Find the vertex of a quadratic in the form $y = a(x - r)(x - s)$

Examples:

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

   Find points to plot:

X	Y

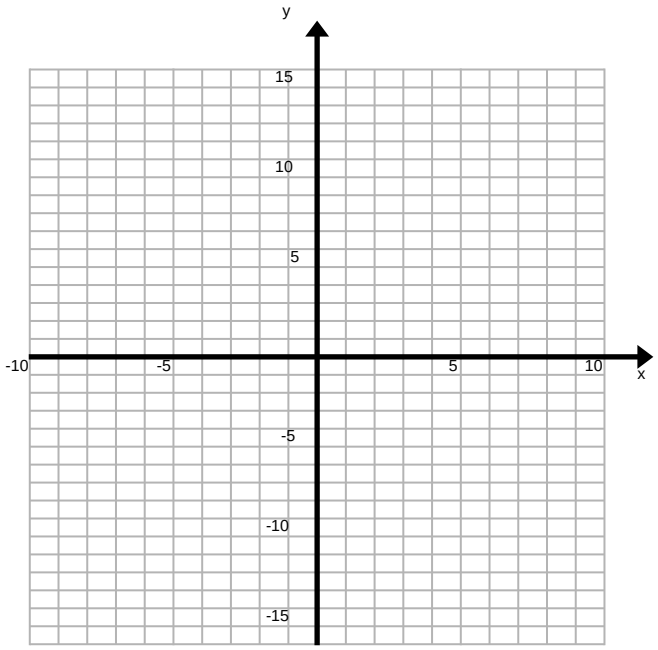


1. Graph and find the intercepts and find the vertex:

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

Find points to plot:

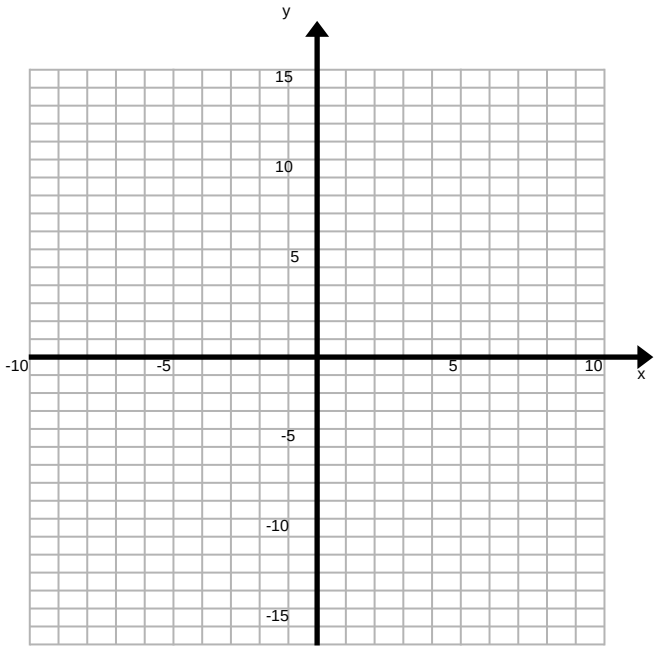
X	Y



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

Find points to plot:

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