Graphing and Properties of Parabolas

For each equation, identify the vertex, the value of p, focus, axis of symmetry, and directrix. Then graph the parabola.

1. $(x - 3)^2 = 4(3)(y - 7)$

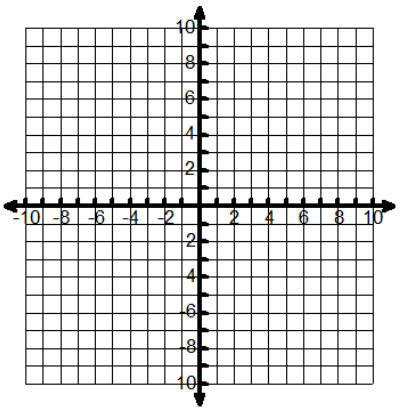
Vertex:

P=

Axis of symmetry:

Focus:

Directrix:



2. $(x + 1)^2 = 4(-3)(y - 6)$

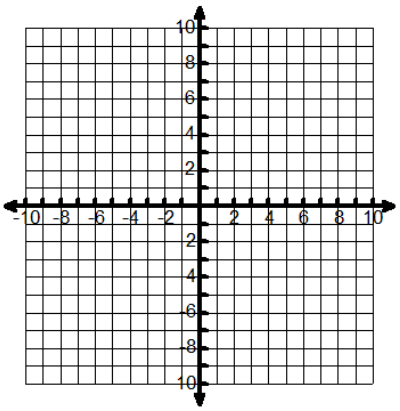
Vertex:

P=

Axis of symmetry:

Focus:

Directrix:



3. $(y - 4)^2 = 4(5)(x + 2)$

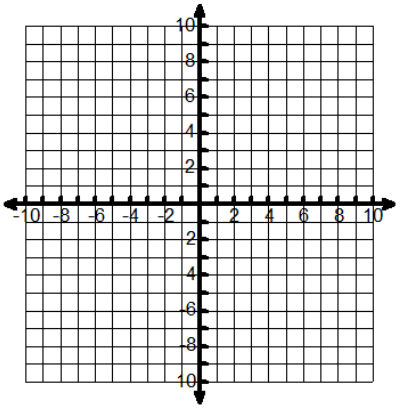
Vertex:

P=

Axis of symmetry:

Focus:

Directrix:



4. $(y + 5)^2 = 4(6)(x - 1)$

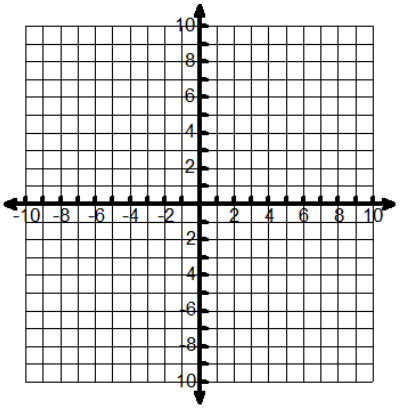
Vertex:

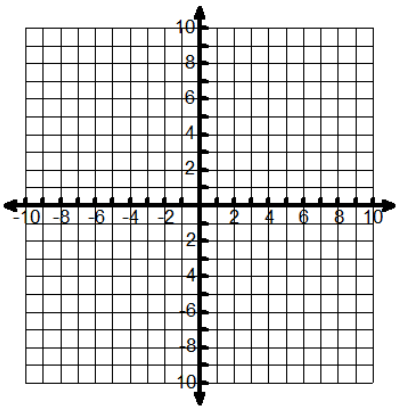
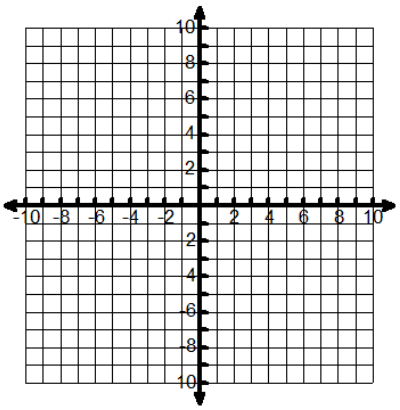
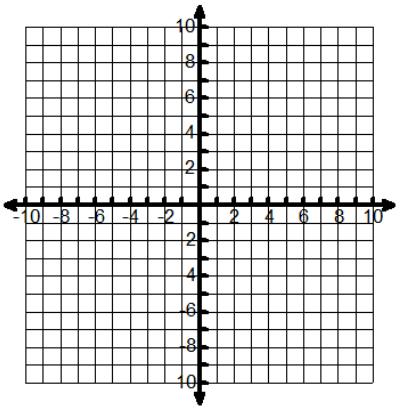
P=

Axis of symmetry:

Focus:

Directrix:



5. $(x + 8)^2 = 4(-1)(y + 2)$ Vertex: P= Axis of symmetry: Focus: Directrix:	
6. $(y + 5)^2 = 4(-3)\ (x - 4)$ Vertex: P= Axis of symmetry: Focus: Directrix:	
7. $(x + 3)^2 = 4(4)(y + 1)$ Vertex: P= Axis of symmetry: Focus: Directrix:	
8. $(y - 1)^2 = 4(-1)(x + 6)$ Vertex: P= Axis of symmetry: Focus: Directrix: