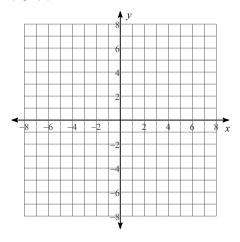
## Worksheet 18 - Lesson 54

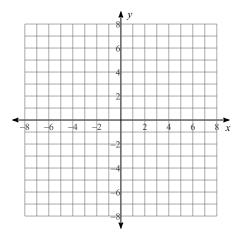
Date Period

Identify the vertex, axis of symmetry, min/max value, intercepts on the axis parallel to the axis of symmetry, and intercepts on the axis perpendicular to the axis of symmetry of each. Then sketch the graph.

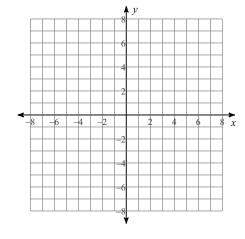
1) 
$$f(x) = (x-2)^2 + 1$$



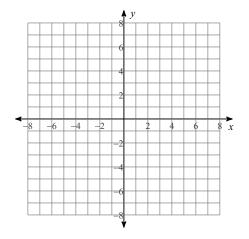
2) 
$$f(x) = -x^2 + 1$$



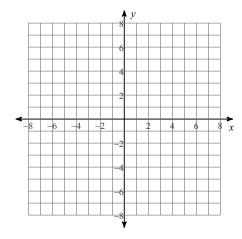
3) 
$$f(x) = -x^2 - 6x - 10$$



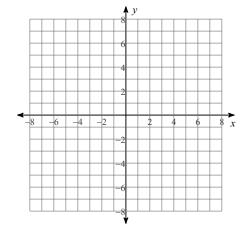
4) 
$$f(x) = x^2 - 2x + 1$$



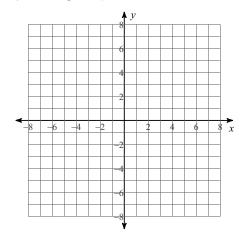
5) y = 2(x-1)(x+3)



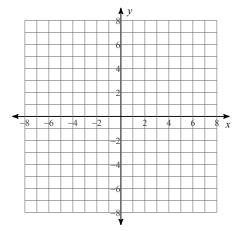
6) y = -(x+4)(x+2)



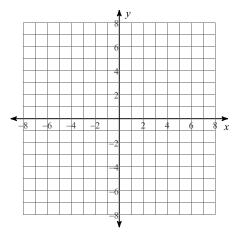
7)  $x = 2(y+5)^2$ 



8)  $x = -(y-3)^2 - 1$ 



9)  $f(y) = -y^2 + 4y$ 



10)  $f(y) = \frac{1}{2}y^2 - 4y + 8$ 

