

Quadratic Functions Practice - parabolas, completing the square

1. For the quadratic function $f(x) = (x - 3)^2 + 7$ give

a	vertex	
b	equation of the axis of symmetry	
c	y- intercept	
d	x- intercept(s)	
e	domain	
f	range	

2. Convert the quadratic equation below to the form $f(x) = a(x - h)^2 + k$

$$y = x^2 + 10x - 7$$

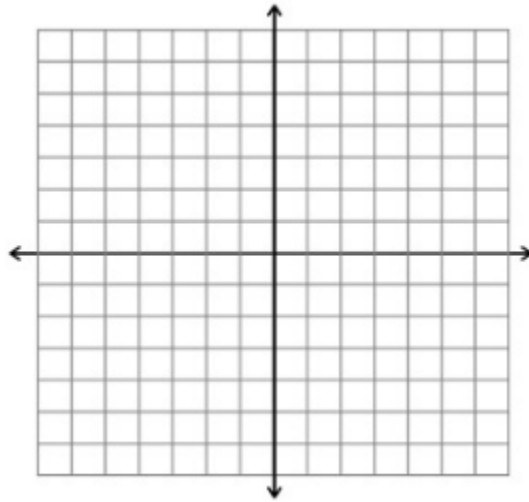
3. Write equations in $f(x) = a(x-h)^2 + k$ form for the described parabolas:

a) Vertex $(0, 5)$; passes through $(2, 9)$

b) Vertex $(8, 3)$; opens down

c) Y-intercept 6; maximum value of 14 when $x=2$

4. Draw a graph of $f(x) = (x + 4)^2 - 6$



5. Draw a graph of $f(x) = -(x - 3)^2 + 5$

