

Math 123, 3.4: Quadratic Functions

For each quadratic function below, find a , b , and c . Does the parabola open upwards or downwards?

1.) $f(x) = x^2 - 3x + 5$

3.) $g(x) = 2x - 3x^2$

2.) $y = x^2 - 11$

4.) $f(x) = 5(x^2 + 3x - 8)$

For each quadratic equation below, find the vertex, then rewrite the function in standard form: $f(x) = a(x - h)^2 + k$

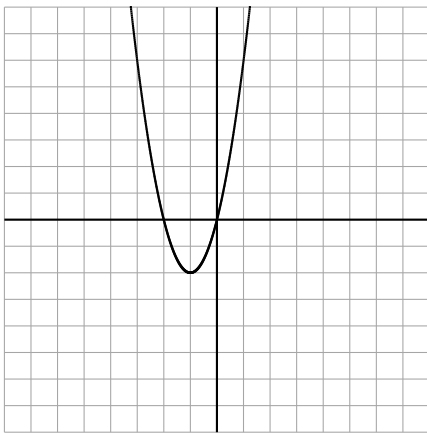
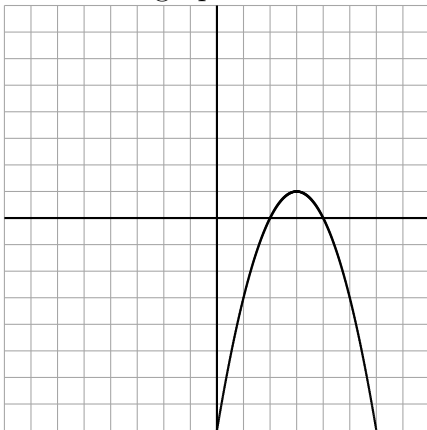
5.) $f(x) = x^2 + 6x + 3$

7.) $h(x) = x^2 - 3x + 2$

6.) $g(x) = -3x^2 + 12x - 1$

8.) $f(x) = 6x - 2x^2$

Given each graph: find the vertex (h, k) , then write the parabola in standard form.



For $f(x) = x^2 - 2x - 3$: find the vertex, x -intercepts, y -intercept, and graph.

