Raed Rabadi

Homework Assignment # 11

10/18/2017

Professor Tomasz Owsiak

3.) **Step 1:** The standard equation of a parabola with vertex at (H,K) is From the given graph, it can be seen that the vertex of a parabola is (1,-1). On substituting 1 for h and -1 for k in the equation, we get.

3.) **Step 2:** Each of the given equation has 1 as the value of a. So, we take a as 1. Now, the equation becomes.

The equation similar to among the given options is

Therefore, the equation of the function is.

7.) **Step 1:** Observe the graph. I can see that the vertex of the parabola is at (1,0).

The standard form of a parabola with the vertex at (H,K) is, if a>0, the parabola opens upward and if a <0, the parabola will open downwards.

Since the parabola in the given graph opens upward, the value of a must *a* must be greater than 0. All the given functions have the value of a as 1.

7.) **Step 2:** Substitute 1 for h, 0 for k, and 1 for a in the equation. = . The function matches with the option

Therefore, the equation for the graph is .