

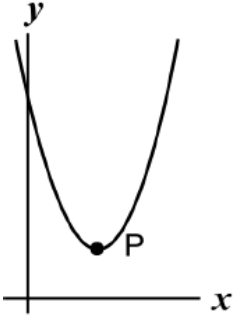
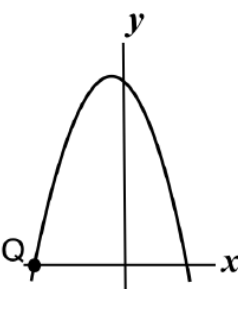
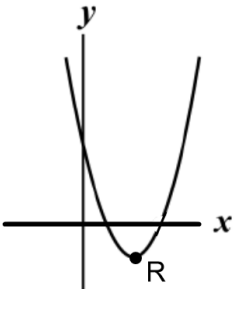
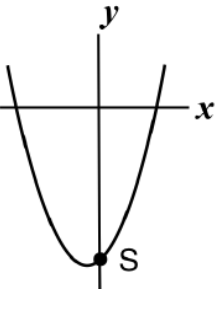
Name:

Period:

Date:

Extending Thinking: Graphing Quadratic Functions

For each of the following, you must explain your answer.

Graph [P] 	Graph [Q] 	Graph [R] 	Graph [S] 
1] $y = x^2 - 6x + 8$ matches graph _____ because	2] $y = (x - 6)(x + 8)$ matches graph _____ because		
3] $y = (x - 6)^2 + 8$ matches graph _____ because	4] $y = -(x + 8)(x - 6)$ matches graph _____ because		

5] Use your answers from #1-4 to find the coordinates of each point shown in the graphs.

P (____, ____)

Q(____, ____)

R (____, ____)

S (____, ____)

6] Write the equation of the quadratic function with its vertex at (2, -2) and y-intercept of (0,6). Show your work.

7] Find the x-intercepts of the quadratic function described in #6. Explain how you know.