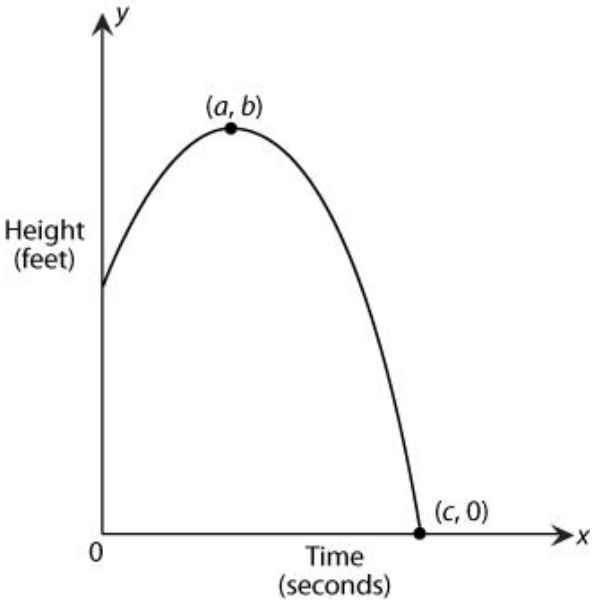
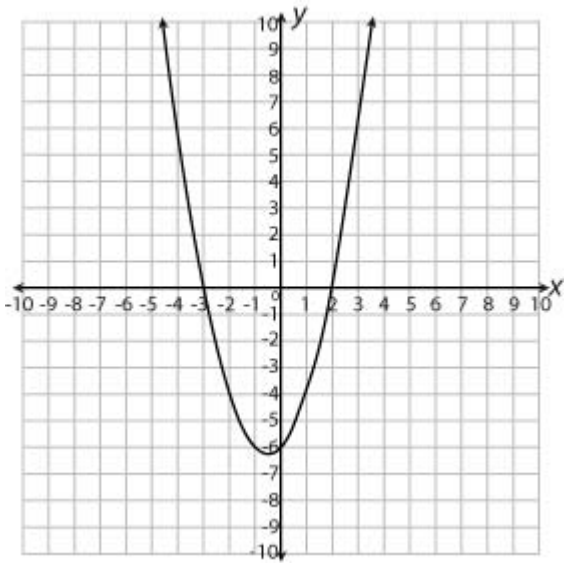
Directions: Answer the following question(s).

1 Jessica went swimming at a lake. She jumped off a large rock into the water. The graph below uses a quadratic function to show how Jessica's height above the water changed over time.



Explain the meaning of the points (a, b) and (c, 0) in this situation.

2 The graph below shows a quadratic function of the form $y = ax^2 + bx + c$.



Which statements about this graph are true? Choose ALL that are correct.

A. The "a" coefficient of the equation represented in this graph is negative.

B. This graph has a vertex of $\left(-\frac{1}{2}, 6\frac{1}{4}\right)$.

C. The function represented in this graph has a zero of 2.

D. This graph has two x-intercepts.

E. This graph has no y-intercepts.