

NAME:

DATE:

A2.Q2.BERMELLEEMBO: THE QUADRATIC FUNCTION'S GRAPH

DAY G2

(GRAPHING AND ANALYSIS)

MASTERY PRACTICE

1. The height (in feet) of a soccer ball kicked in the air after t seconds is modeled by the function $h(t) = -16(t - 2)^2 + 65$

State the Function Type and Shape:

State the vertex:

State the concavity:

- A. Determine the amount of time it took the soccer ball to reach its maximum height.

Include Units of Measure

- B. Determine the maximum height of the soccer ball in flight.

Include Units of Measure

- C. What was the height of the soccer ball the instant it was released?

Include Units of Measure

- D. Draw a quick sketch of the soccer ball in flight.

2. The height (in feet) of a ball kicked in the air after t seconds is modeled by the function $h(t) = -16t^2 + 60t + 2$

STATE THE VERTEX:

ROUND ANSWERS TO THE NEAREST HUNDREDTHS AND INCLUDE UNITS OF MEASURE.

A. Determine the height of the ball after $t = 2.5$ seconds. *Include Units*

B. Determine the amount of time it took the ball to reach its maximum height. *Include Units*

C. Determine the maximum height of the ball in flight. *Include Units*

D. Determine how long it took for the ball to reach the ground. *Include Units*

E. Draw a quick sketch of the ball in flight. Label key points.