

Name: _____

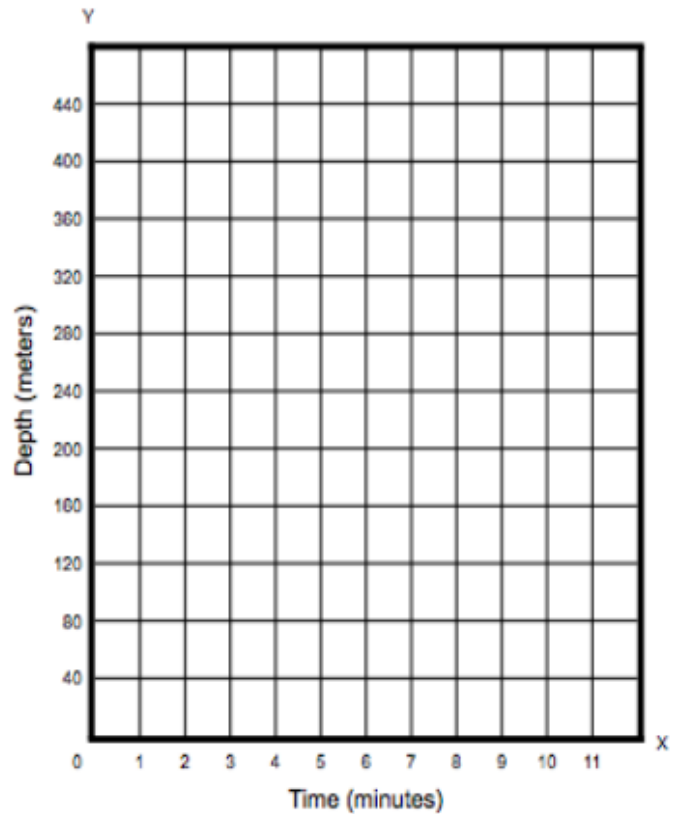
Date: _____

The table shows the relationship between the depth, in meters, of a submarine and the time, in minutes, since it started a dive.

Submarine Depth

Time (minutes)	Depth (meters)
2	100
4	180
6	260
8	340

Submarine Depth



PART A

Plot the values in the table on the coordinate plane as shown.

Select the places on the coordinate plane to plot the points.

PART B

Determine whether the relationship is proportional or not. Explain how the relationship shown in the table supports your answer. Explain how your graph supports your answer.



Enter your answer and explanation in the space provided.

ANSWER KEY

Rubric Part A	
Score	Description
1	<p>Student response includes the following component:</p> <ul style="list-style-type: none"> • Reasoning component = 1 point <ul style="list-style-type: none"> ○ Student correctly plots the points (2, 100), (4, 180), (6, 260), and (8, 340) on the coordinate grid.
0	Student response is incorrect or irrelevant.
Rubric Part B	
Score	Description
2	<p>Student response includes both of the following components:</p> <ul style="list-style-type: none"> • Reasoning component = 1 point <ul style="list-style-type: none"> ○ Student provides a valid explanation, using the table, of why the relationship is NOT proportional. • Reasoning component = 1 point <ul style="list-style-type: none"> ○ Student provides a valid explanation, using the graph, of why the relationship is NOT proportional. <p>Sample Student Response: “The relationship is not proportional. The table supports the relationship is not proportional because the ratio between the two quantities is not the same for each x- and y- value.</p> $\frac{100}{2} \neq \frac{180}{4} \neq \frac{260}{6} \neq \frac{340}{8}$ <p>Because the ratios are not equal, the student can conclude that the relationship is not proportional.</p> <p>The graph supports that the relationship is not proportional because the points I plotted on the graph of the relationship lie on a line, but the line does not intersect the origin. Instead, it intersects the y-axis at the point (0, 20). Therefore, the relationship between height and time is not proportional.</p> <p>(If students correctly apply this method, count their work as correct.)</p>
1	Student response includes 1 of the above elements.
0	Student response is incorrect or irrelevant.

Glow	Grow