

Applications of Quadratic Functions ... Quadratics in Real Life

The graph of a **quadratic formula** is called a _____, which is a "_____" shaped graph. How do you think the picture of the dolphin below is connected to quadratic equations and parabolas? _____.



1. With your pencil or a dark marker draw in the path of the dolphin's jump (or the real life parabola).
2. Label the vertex.
3. Tell if there is a minimum or maximum.
4. Label the x-intercepts.

This time...

5. Draw in the X-axis across the top of the water line.
6. Draw in the y-axis at the **beginning** of the Dolphin's jump.
7. With your pencil trace in the path of the dolphin's jump (or the real life parabola).
8. Label the vertex.
9. Predict what a real life vertex could be for a dolphin by answering these questions.
 - a. How long does it take for a dolphin to jump out of the water, follow its path and back in? _____ sec or min
 - b. How high do you think the dolphin can jump? _____ in. or ft.
 - c. Predicted Vertex
(time, height) = (_____, _____)
10. Tell if there is a minimum or maximum
11. Label the x-intercepts.
 - a. (_____, _____) (_____, _____)
 - b. What does each x-int mean?

