

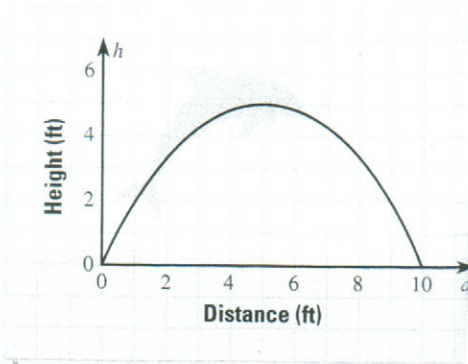
P 522

SKETCHING GRAPHS Sketch the graph of the function. Label the vertex.

62. $y = -\frac{1}{3}x^2 + 2x - 3$ 63. $y = -\frac{1}{2}x^2 - 4x + 6$ 64. $y = -\frac{1}{4}x^2 - x - 1$

DOLPHIN In Exercises 65 and 66, use the following information.

A bottlenose dolphin jumps out of the water. The path the dolphin travels can be modeled by $h = -0.2d^2 + 2d$, where h represents the height of the dolphin and d represents horizontal distance.



65. What is the maximum height the dolphin reaches?
 66. How far did the dolphin jump?

P 530

GRAPHICAL REPRESENTATION Represent the solution graphically. Check the solution algebraically.

33. $x^2 - x = 6$ 34. $x^2 + 2x = 3$ 35. $-x^2 + x = -2$

P 537

P 521

- a. Tell whether the graph of the function opens up or down.
 b. Find the coordinates of the vertex.
 c. Write an equation of the axis of symmetry.

~~21. $y = 2x^2$ 22. $y = -7x^2$ 23. $y = 6x^2$ 24. $y = \frac{1}{2}x^2$~~
 25. $y = -5x^2$ 26. $y = -4x^2$ 27. $y = -16x^2$ 28. $y = 5x^2 - x$
 29. $y = 2x^2 - 10x$ 30. $y = -7x^2 + 2x$ 31. $y = -10x^2 + 12x$