

Practice for 2.1 Quadratic functions and models

The following problems will help you practice the material you learned today. Once you are finished check your solutions. Once done, you can work on your WeBWorK homework.

1. Write an equations of the quadratic function with a vertex at (2,-3) which passes through the point (4,1)
2. Find the x and y intercepts and the vertex of this quadratic function:
 $y = x^2 - 2x - 3$.
3. Find the x and y intercepts and the vertex of this quadratic function:
 $y = -2x^2 + 8x + 2$.
4. If the height of a ball thrown up in the air is given by this equation:
 $h(t) = -16t^2 + 48t + 160$
When does it hit the ground?
How high does it go?
When does it reach the highest point?
5. If the area of a rectangle is 75 and the height is 10 more than the width, what are the dimensions of the rectangle?