**6.3 Max/Min Word Problems**

**Example 1:** The equation below represents the height in meters of a diver jumping off a springboard versus time in seconds.



h = -5t2 + 10t +2



To begin, we know:



1. How long does it take the diver to reach the maximum height?



1. How many seconds is the diver in the air (to one decimal place)?



1. How long after the maximum height before the diver hits the water (to one decimal place)?



1. What is the maximum height?



**Example 2:** An area enclosed by a wire fence is A = -w2 +350w, Where A is area in square meters and w is the width in meters.



1. What is the width of the yard if the area is maximized?



1. What is the maximum area of the yard?



1. What are the dimensions of the yard?

