

## ***Quadratic Function Real World Scenario***

The following function represents the path of a car. The car is driving West and you are walking East on a one way single lane road when you witness the car veer off the road out of control. HINT (Let X-axis represent the sidewalk you are on). The car is 50 feet away from you when it loses control and crosses the sidewalk. The path is modeled by the following function:  $Y = .016x^2 - .48x - 6.4$ . If you freeze where you are, will you be safe?

In detail explain your reasoning as well as the process and your calculations to justify your answer. Where does the car cross on your side of the sidewalk? How far off line did the car get?

Use complete sentences and explain all your steps. For full credit you may draw a picture to illustrate the scenario. Be sure your illustration depicts the scenario.

You will be graded on completeness, accuracy and your ability to explain clearly the problem and your reasoning for the answer you provide.