Quiz 4 – Applications of Derivatives Make sure you show complete work.

1. A potato is placed in an oven, and the potato's temperature F (in degrees Fahrenheit) at various points in time (measured in minutes after the potato goes in the oven) is taken and recorded.

Suppose it is given that  F(64)=330.28 and  F′(64)=1.341. What is the meaning of each of these two quantities?

What do you expect the temperature to be at 64.75 oF? Round your answer to the nearest thousandths.

1. A man walks along a straight path at a speed of 3 ft/s. A search light is located on the ground 27 feet from the path and is kept focused on the man. When the man is 3 feet from the point on the path closest to the search light, determine at what rate is the searchlight rotating?

