

7. How would your table, graph, and equation change if:

- a) You wanted to know the height above the ground rather than the height above the platform?
- b) The Ferris wheel rotated twice as fast? Half as fast?
- c) The diameter of the Ferris wheel was 75 feet?
- d) The boarding platform was located at the bottom of the Ferris wheel?

Make sure to explain your answers in each case.

Problem B

The voltage V that produces a current I in a wire of radius r is given by the formula

$$V = \frac{0.03I}{r^2}$$

The current, I , is measured in amperes (A) and the radius of the wire, r , is measured in inches.

If the current increases at 0.02 amperes per second (A/s) in a wire of radius 0.04 inches (in.), find the rate at which the voltage is increasing with respect to time.