

Algebra 1
9.3 Worksheet #1 p501

Name _____

1.	2.
9.	10.
11.	12.
13.	14.
15.	16.
17.	18.

Maintaining Mathematical Proficiency

45.	46.	47.
48.	49.	50.

Falling Object Model

$$h_t = -16t^2 + h_0$$

$$h_0 = \underline{\hspace{2cm}}$$

$$t = \underline{\hspace{2cm}}$$

$$h_t = \underline{\hspace{2cm}}$$

Use the Falling Object Model to answer the following questions. Round to the nearest hundredth of a second, if necessary.

- | |
|---|
| 1. A person sitting in the top row of the bleachers at a sporting event drops a pair of sunglasses from a height of 24 feet. How long does it take the sunglasses to hit the ground? |
| 2. If someone were to drop a penny while standing on the Skydeck in Willis Tower, how long would it take the penny to hit the ground? (The Skydeck is 1353 feet high.) |
| 3. Goliath at Six Flags Great America has the world's tallest drop for a wooden coaster at 180 feet. If someone were to drop a cell phone while riding Goliath at its highest point, how long would it take the cell phone to hit the ground? |