**Acceleration Due to Gravity Worksheet**

***Acceleration due to gravity is known to be 9.8 meters/second/second or 9.8 m/s2. Use this to answer the following questions.***

1. A penny dropped into a wishing well reaches the bottom in 1.50 seconds. What was the velocity at impact?
2. A pitcher threw a baseball straight up at 35.8 meters per second. What was the ball’s velocity after 2.50 seconds? (Note that, although the baseball is still climbing, gravity is accelerating it downward.)
3. In a bizarre but harmless accident, Superman fell from the top of the Eiffel Tower. How fast was Superman traveling when he hit the ground 7.80 seconds after falling?
4. A water balloon was dropped from a high window and struck its target 1.1 seconds later. If the balloon left the person’s hand at –5.0 m/s, what was its velocity on impact?

**Challenge:**

1. A stone tumbles into a mine shaft and strikes bottom after falling for 4.2 seconds. How deep is the mine shaft?
2. A boy threw a small bundle toward his girlfriend on a balcony 10.0 meters above him. The bundle stopped rising in 1.5 seconds. How high did the bundle travel? Was that high enough for her to catch it?