

Freefall Worksheet

Name _____

1. Mr. Hayes drops a penny from the top of the stadium at the front of Paulding County High School and it takes 1.85 seconds to hit the ground. Calculate the velocity in m/s after 1.10 seconds of freefall and calculate the velocity at impact in mi/hr.
2. If I drop a watermelon from the top of one of the band towers, and it takes 3.34 seconds to hit the ground, calculate how tall the building is in meters and then convert into feet.
3. You are walking in Paris alongside the Eiffel Tower and suddenly a croissant smacks you on the head and knocks you to the ground. From your handy dandy tourist guidebook you find that the height of the Eiffel Tower is 300.5 m. If you neglect air resistance, calculate how many seconds the croissant dropped before it tagged you on the head.
4. During the latter part of your European vacation, you are hanging out at the beach at the gold coast of Spain. As you are laying in your chaise lounge soaking up the warm Mediterranean sun, a large glob of seagull poop hits you in the face. Since you got an "A" in physics, you are able to estimate the impact velocity at 98.5 m/s. Neglecting air resistance, calculate how high the seagull was flying when it pooped.
5. If you were to throw a large log over the edge of the Grand Canyon and it took 5.65 seconds to hit the ground, calculate the velocity of the log at impact in m/s and calculate the distance the log fell in feet.
6. East Paulding football team has been stuffed again and now must punt. If the punter kicks the ball with a vertical velocity of 49.0 m/s, how high will the ball go and how long will it take to come back to the ground?