AP Physics – Homework Oh the Homework – 4



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1. A can of tuna is dropped from a building. If the can takes 3.2 seconds to strike the ground, what distance did it fall?

2. An engine falls off of a 737 from a height of 2500 m. Ignoring wind resistance, how fast is the thing traveling when it smacks into the turf?

3. A ball is thrown <u>straight down</u> from a bridge with an initial velocity of 18.5 m/s. If it travels for 2.3 sec, how high is the bridge?

4. A ball, initially at rest, rolls down a ramp. It experiences an acceleration of 1.2 m/s² If it is rolls a distance of 1.8 m, how fast is it traveling?

5. A ball is thrown straight up. If its initial velocity is 24 m/s, how high does it rise before it begins falling down?

6. A ball is thrown straight up, it rises 12.5 m before it falls back down. (a) What was its initial speed? (b) how much time is it in the air?

7. A ball is thrown <u>straight down</u> from a bridge with an initial velocity of 18.5 m/s. The bridge is 22.0 m above the river. How much time to hit the water?