

Trouble-Maker Thomas

Physics 432

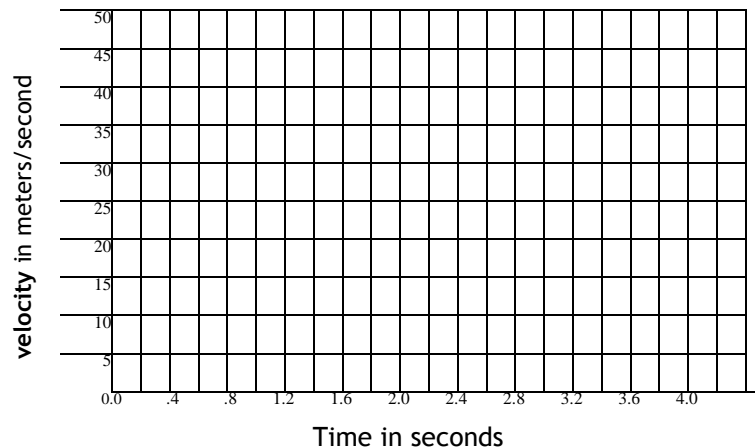
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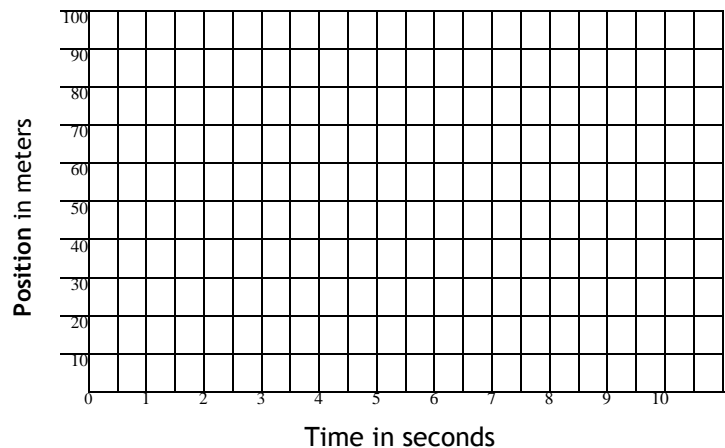
1) Thomas is dropping stones from a bridge. If it takes 3.0 seconds to hit the cars beneath, how high was the bridge?

2) Thomas tips a flower pot off a window sill ($V_i=0$) and strikes the ground 45 meters below. How fast is it going when it strikes the ground?

3) A boy throws a water balloon straight up into the air with a velocity of 50 m/s. (a. How high will the balloon go? (b. Graph this action at right.



4) Thomas launches a firework with an initial velocity of 40 m/s. (a. if the firework turned out to be a dud (no explosion), how much time will it spend in the air? (b. Graph this Position Vs. Time Graph Below.



5) Standing on the top of a 110 meter cliff, Thomas throws a Picasso original directly down at a speed of 5.6 meters per second. How fast will the painting be traveling when it strikes the ground?

6) Thomas is now on a 7 meter bridge is spitting on the ducks below him. If his spit takes 1.0 seconds to hit the ground below, how fast is his saliva traveling out of his mouth?