PHYSICS 12 **KINEMATICS QUIZ**

Name:_____
Date_____

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[5] **1.** A 5.0-kg object fell and spent 4.25 s in free fall. What was the height is fell from?

What assumptions do you make?

[5] **2.** An object is thrown with initial velocity of 68.5 m/s 78° above horizontal. How much time does it need to reach its maximum height?

[5] **3.** A 20-kg object was ejected straight upwards with speed of 45 m/s and landed 50.0 m above the launching level. How much time elapsed between the launching of the projectile and its landing?

[5] **4.** Find the initial velocity of a projectile that had initial speed of 145.0 m/s and spent 8.2 s in the air. Assume that the air resistance was negligible, there were no other forces acting on the projectile except the gravitational pull of the Earth.

- **What other assumptions do you have to make in order to answer this question?**