

Unsolved Kinematics Problem given to me by an 8th grader! :(

Written by Gyaneshwaran G

Tuesday, 17 July 2012 14:05 - Last Updated Monday, 23 July 2012 19:02

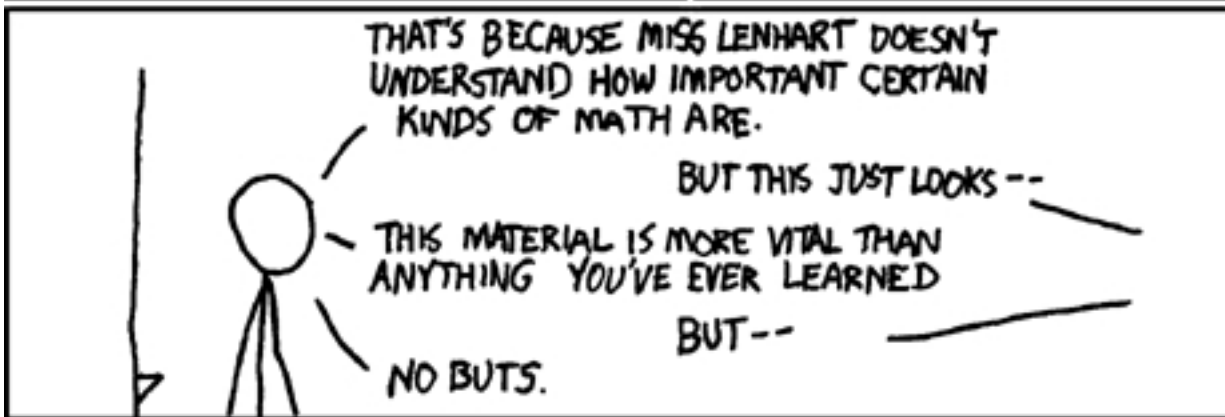
An 8th std kid (Hariharan) asked me this kinematics problem, and I'm embarrassed to admit that I'm still unable to solve it. So I'm sharing the question with you in the hope that some of you can solve it.

It's the second question in the series. I've already solved the first question (as have many others), and [the solution can be viewed here.](#)

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— THIS IS A MATTER OF LIFE AND DEATH.

Name: _____

1. The velociraptor spots you 40 meters away and attacks, accelerating at 4 m/s^2 up to its top speed of 25 m/s . When it spots you, you begin to flee, quickly reaching your top speed of 6 m/s . How far can you get before you're caught and devoured?



2. You are at the center of a 20m equilateral triangle with a raptor at each corner. The top raptor has a wounded leg and is limited to a top speed of 10 m/s .



The raptors will run toward you. At what angle should you run to maximize the time you stay alive?

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[I have solved the second question you can post your solution. But here](#) looking for an