



The Jogging Hare

The Hare is training for his long awaited rematch with The Tortoise. He begins his morning jog an unknown distance in front of his burrow. He runs at a constant rate (assume instantaneous acceleration), in a straight line away from his burrow. After 35 seconds he passes a boulder that he knows is 220 feet in front of his home. After two and a half minutes (total time), he passes a tree that he knows is 680 feet from his home.

With the information that you now have regarding the Jogging Hare, answer the following four questions.

- How fast is the Hare jogging in feet per second?
- How far in front of his burrow did he start?
- How far will the Hare be in 3 minutes?
- When will the Hare reach the stream that is a 1000 feet away?

Once you have answered the above questions, complete the following.

- Write the numerical information given as two data points (ordered pairs). Set the time in seconds as your domain, and distance in feet as your range. Also write your answers to #2-4 above as ordered pairs.

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- Write an equation for the scenario and show that your equation supports your answers to #1-4 above.
- Graph the scenario above by plotting your five data points. Then graph your equation to show that your data concurs with your equation.