

Name:

**Math 120 \* Quiz 1 (§1.1, 1.2)**  
**Thursday, September 30**

- Read the questions carefully.
  - Show your work; you need to write down what you type into your calculator.
  - Your answer must follow from the work you show.
  - Make sure you clearly answer the question that was asked; include units where appropriate.
1. Yvonne is running at 8 mph, chasing after her young brother Davey, who is running at 5 mph, in order to put an ice cube down his back. Davey has a 30 foot head start. How far will Davey run before Yvonne catches him?

(over)

2. A squirrel is initially at the base of a large oak tree. An acorn falls 20 feet north and 10 feet east of the squirrel's location, and then another falls 15 feet west and 10 feet south of the first acorn's location. The squirrel darts to the first acorn, then to the second, and then back to the tree, all the time running at a rate of 20 mph.

(a) How far is the squirrel from the first acorn?

(b) How many seconds does it take the squirrel to reach the second acorn?