

Name _____

Homework 2

Section 1.2

1. (6) A boat travels at a constant speed of 20 miles per hour, relative to the water, as it makes a trip downstream and then returns. If the initial trip downstream takes the boat 30 minutes and the return trip upstream takes the boat 40 minutes, what is the speed of the current? (Round to one decimal place, if necessary).

2. (7) The cooling system of a certain car has a capacity of 4 gallons and is currently filled with a 45% antifreeze mixture. How much of this mixture must be drained and replaced with pure antifreeze so that the resulting mixture is 67% antifreeze?

3. (7) Bob can build a fence in 10 hours. If Frank helps him build the fence, they can complete it in 6 hours. How long would it take Frank to build the fence by himself?