

Name _____

College you would like to go to _____

Show your work, circle your answers, and use significant digits to receive full credit.

When you have finished this, go to the website and check your answers. If you got a problem wrong, cross it off on the front, and do it correctly on the back.

1-3: A boat points straight across a 68.0 m wide river and crosses it in 18.2 seconds. In doing this it is carried downstream 23.7 m

1. What the boat's velocity with respect to the water?

2. What is the speed of the current?

3. What is the velocity (in angle magnitude notation) of the boat as it moves across the river?

4-5: A boat has a velocity of 3.72 m/s in a river with a current of 1.31 m/s. The river is 47.2 m wide.

4. If you point straight across the river, what time will it take you to cross?

5. Where would you land if you pointed at an angle of 13.7° downstream of straight across?