Name: Period:

River Vector Problems II

*Show all work and displacement and velocity vector drawings.*

1. A boat heads directly across a river 40 meters wide at 8 m/s.

The current is flowing at 3.8 m/s.

a) What is the resultant velocity of the boat?

b) How far downstream is the boat when it reaches the other side?

c) How long does it take to cross the river?

2. A river flows due south. A riverboat heads 27 degrees north of west and is able to go straight across the river at 6 mi/hr.

a) What is the speed of the current?

b) How wide is the river if it takes 10 minutes to cross?