



B) how long she will take to reach the far shore.

C) how far downstream she will land.

4 A swimmer on the south shore of a river wishes to swim to a dock due north of his starting point. His speed in still water is 4.0 km/h and there is a current in the river flowing at 2.5 km/h to the West.

A) In what direction must he swim to get directly across the river?

B) If the river is 2.0 km wide, how long does it take him to make the crossing?

5. A man attempts to swim at 5.8 m/s due west across a river which flows south with a 2.3 m/s current.
- A.
- i. What will be his resultant velocity?
  - ii. How long does it take him to cross the river, if the river is 1500 m wide?
  - iii. How far down stream does he land?
- B.
- i. In what direction must he swim at his 5.8 m/s speed to get directly across the river?
  - ii. If he does get directly across the river, what was his resultant velocity in crossing the river?
  - iii. If the river is 1500 m wide, how long will it take him to cross the river?