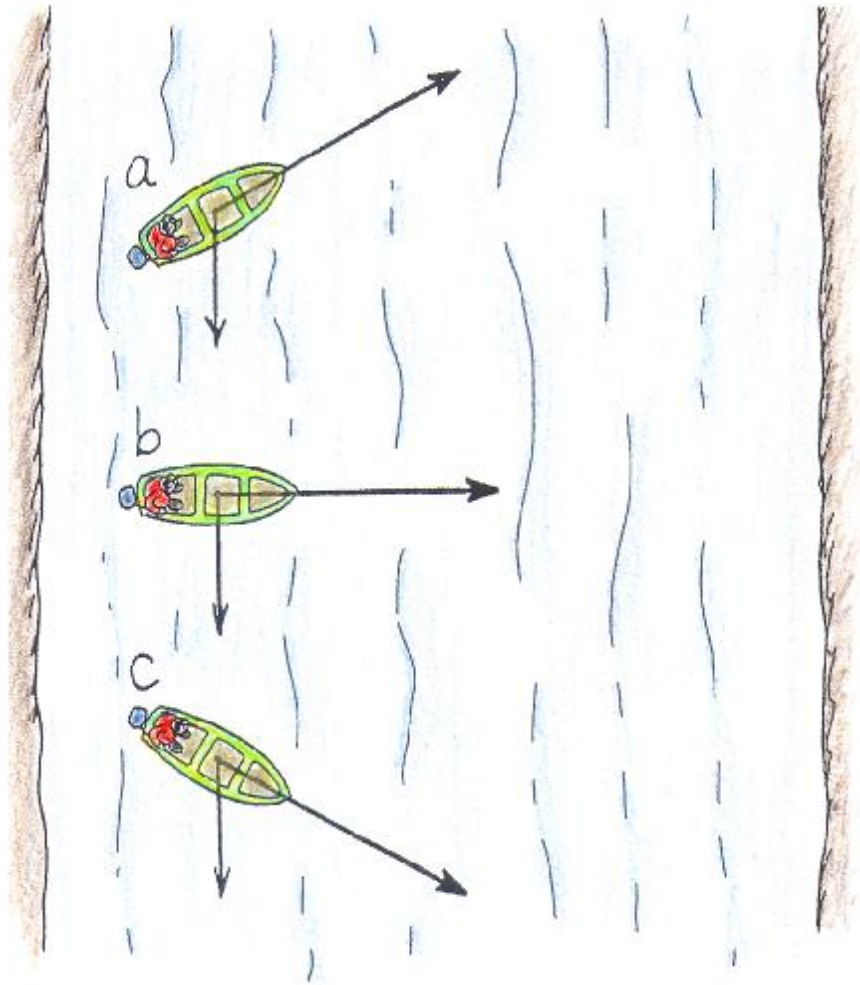


# NEXT-TIME QUESTION

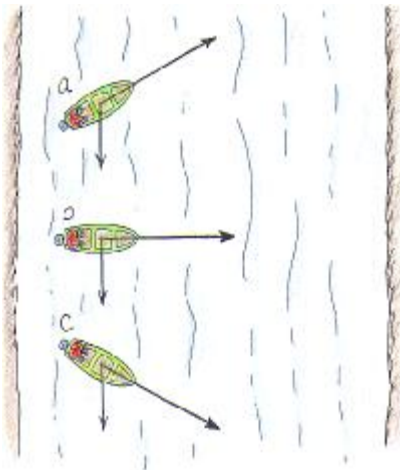
CONCEPTUAL Physics



Motorboats cross a river in three directions shown. The boats all have the same speed relative to the water, and all experience the same water flow.

- 1.) Which boat takes the shortest path to the opposite shore?
- 2.) Which boat reaches the opposite shore first?
- 3.) Which boat provides the fastest ride?

# NEXT-TIME QUESTION

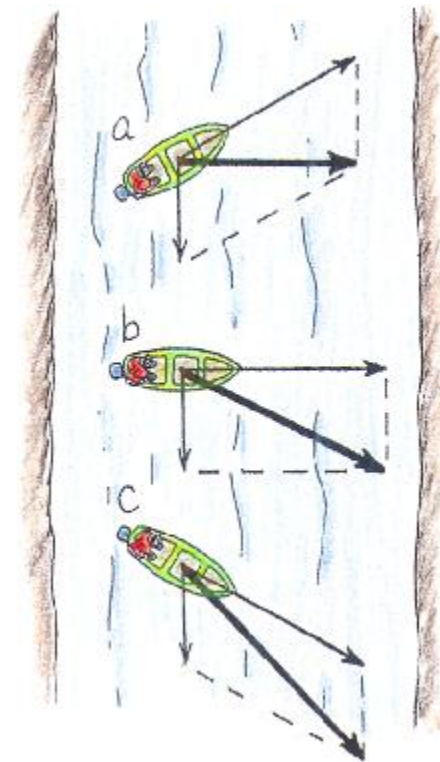


Motorboats cross a river in three directions shown. The boats all have the same speed relative to the water, and all experience the same water flow.

- 1.) Which boat takes the shortest path to the opposite shore?
- 2.) Which boat reaches the opposite shore first?
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## Answers:

1. The shortest path to the opposite shore occurs for Boat *a*, which is indicated by the resultant velocity vector. The boat moves directly across the river, perpendicular to the flow.
2. Time wise, the opposite shore is reached first by Boat *b*, since the velocity provided by the motor is directly across the river.
3. The fastest ride is on Boat *c*, as seen by the greatest resultant velocity vector.



Hewitt  
Drewitt!

