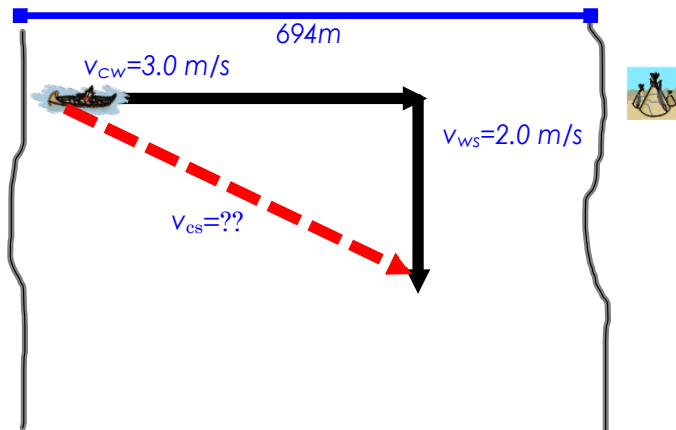


### Example 1

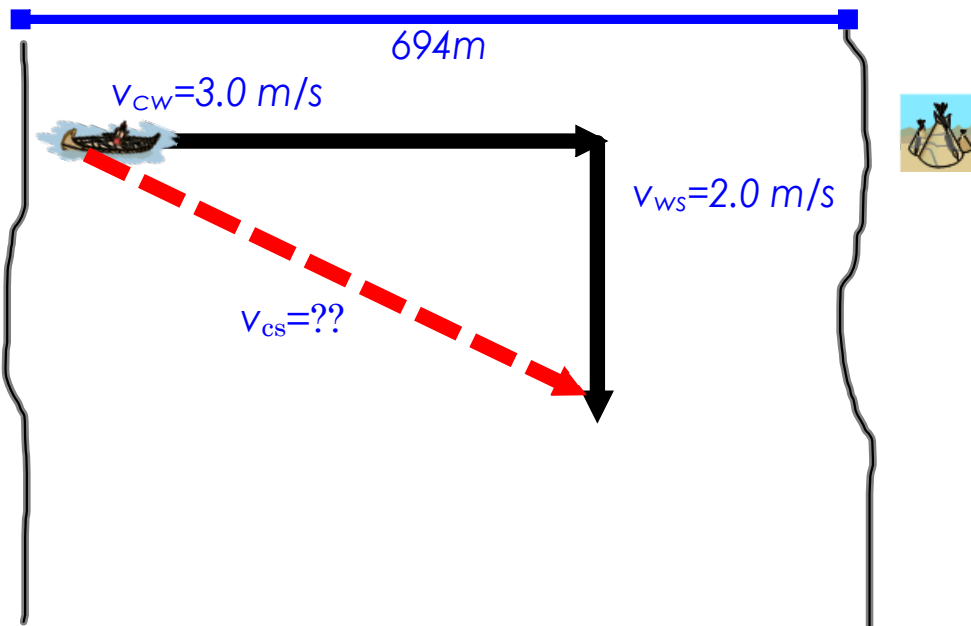
A canoeist is planning to paddle to a campsite directly across a river that is 624m wide. The velocity of the river is 2.0 m/s [S]. In still water, the canoeist can paddle at a speed of 3.0 m/s. If the canoeist points her canoe straight across the river, toward the east:

- a) How long will it take her to reach the opposite shore?
- b) Where will she land in relation to the campsite she was headed for?
- c) What is the velocity of the canoe relative to a point on the riverbank, where she left?



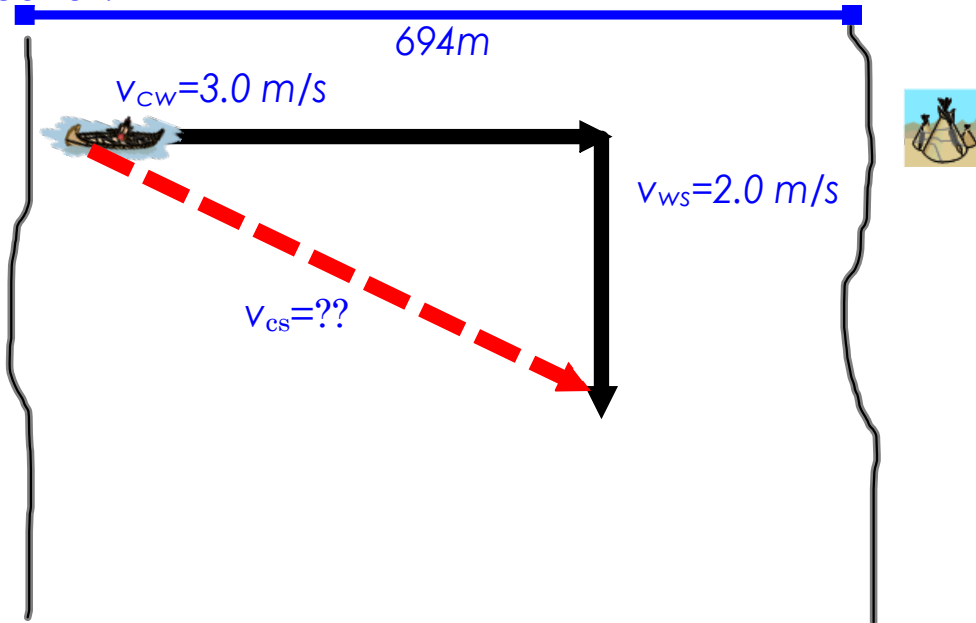
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a) How long will it take her to reach the opposite shore?



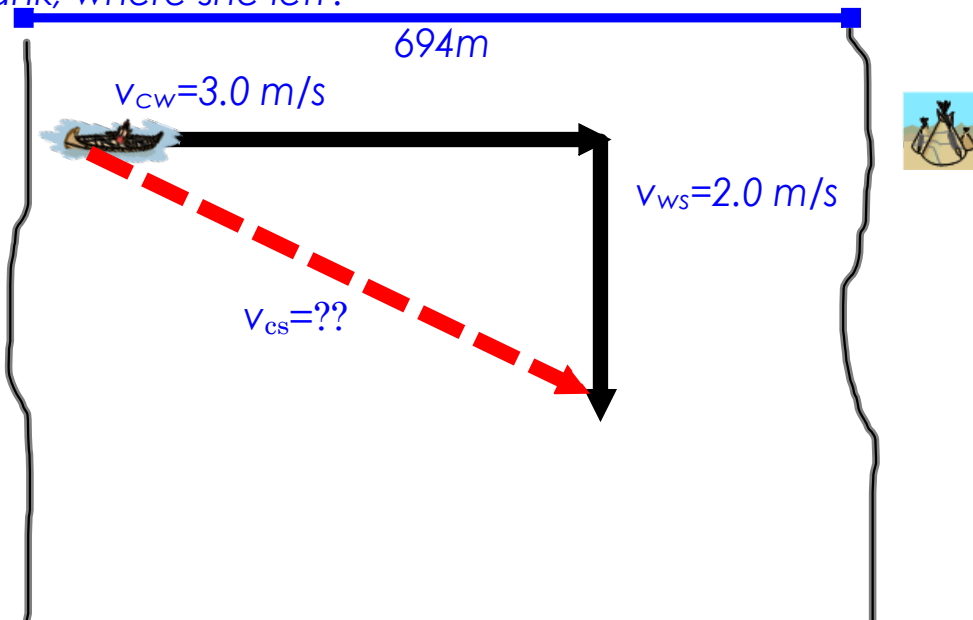
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b) Where will she land in relation to the campsite she was headed for?



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c) What is the velocity of the canoe relative to a point on the riverbank, where she left?

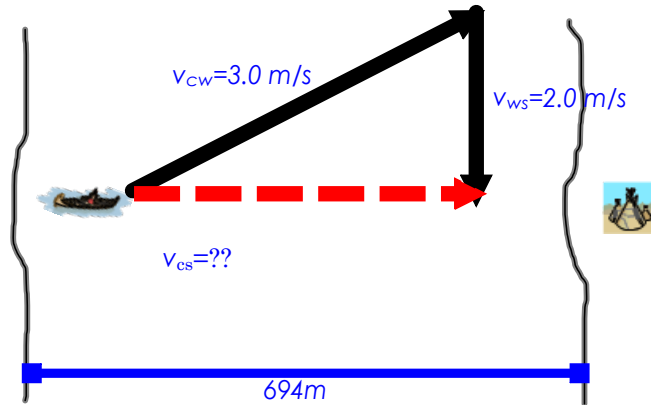


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## Example 2

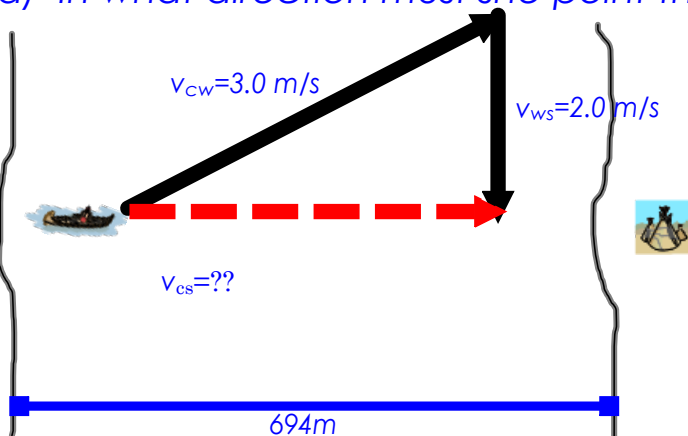
The canoeist in Example 1 wants to head her canoe in such a direction that she will actually travel straight across the river to the campsite.

- In what direction must she point the canoe?
- Find the magnitude of her velocity relative to the shore?
- How long will it take the canoeist to paddle to the campsite?



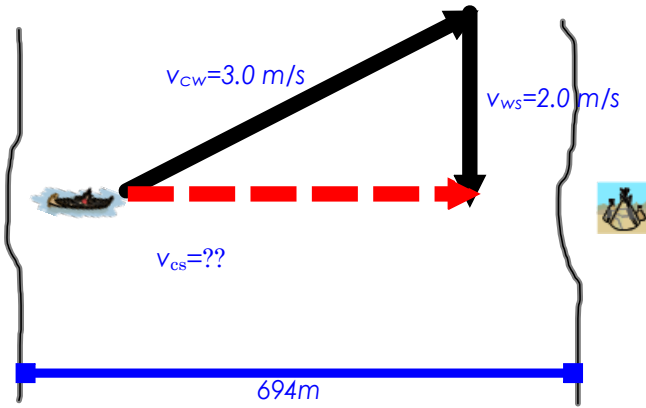
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- In what direction must she point the canoe?



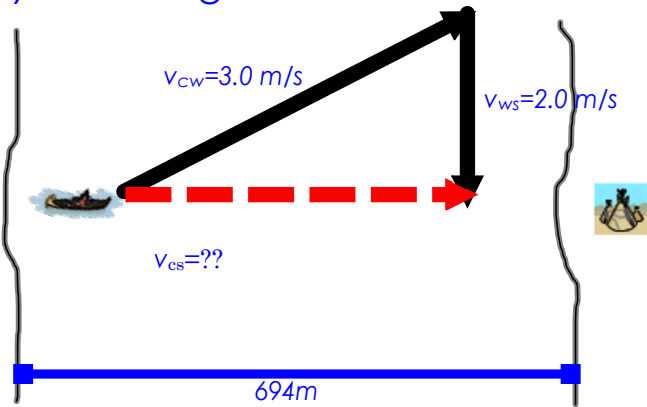
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b) Find the magnitude of her velocity relative to the shore?



Oct 9-7:50 PM

c) How long will it take the canoeist to paddle to the campsite?



Oct 9-7:50 PM