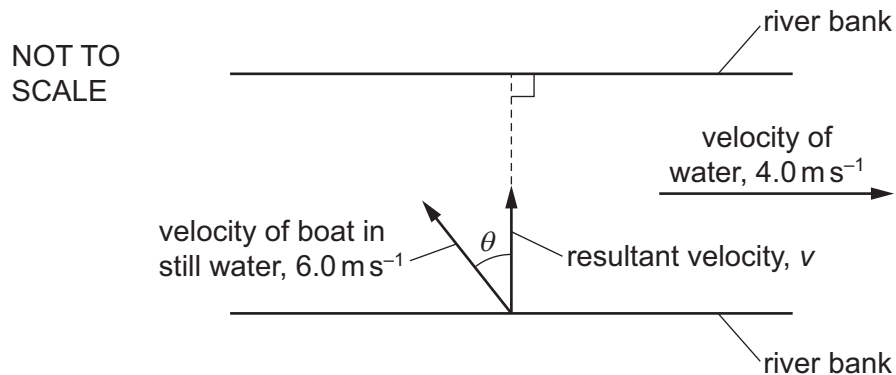


- 4 A boat is crossing a river in which the water is moving at a speed of 4.0 m s^{-1} from left to right.



In still water, the speed of the boat is 6.0 m s^{-1} . The boat is directed at an angle θ to a line perpendicular to the river banks. The resultant velocity v of the boat is in a direction perpendicular to the river banks.

What are the values of θ and v ?

	$\theta / ^\circ$	$v / \text{m s}^{-1}$
A	42	4.5
B	42	7.2
C	48	4.5
D	48	7.2

- 5 A boat is pulled out of the water by a rope that is attached to a point on the bank and is pulled in at a constant speed of 5.0 m s^{-1} . The boat is pulled out of the water at an angle of 30° to the bank. The boat is pulled out of the water at a speed of 4.0 m s^{-1} .