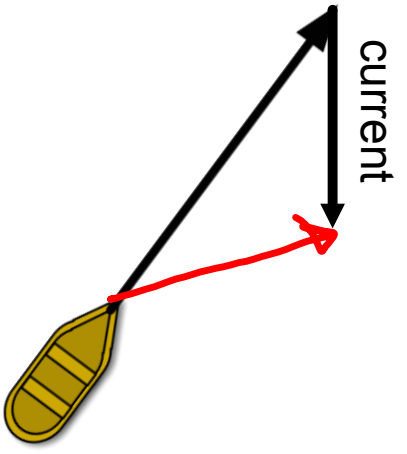
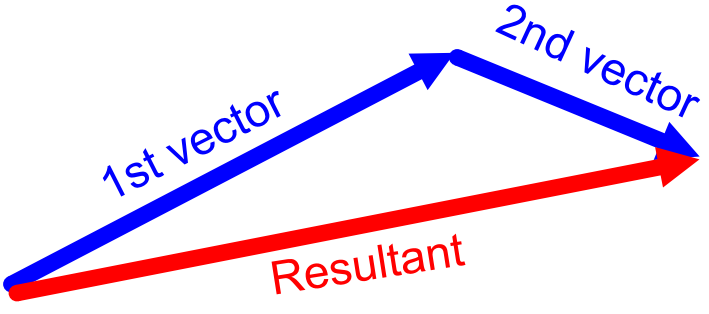
# Head to Tail Method works for any angle (and any kind of vector.)



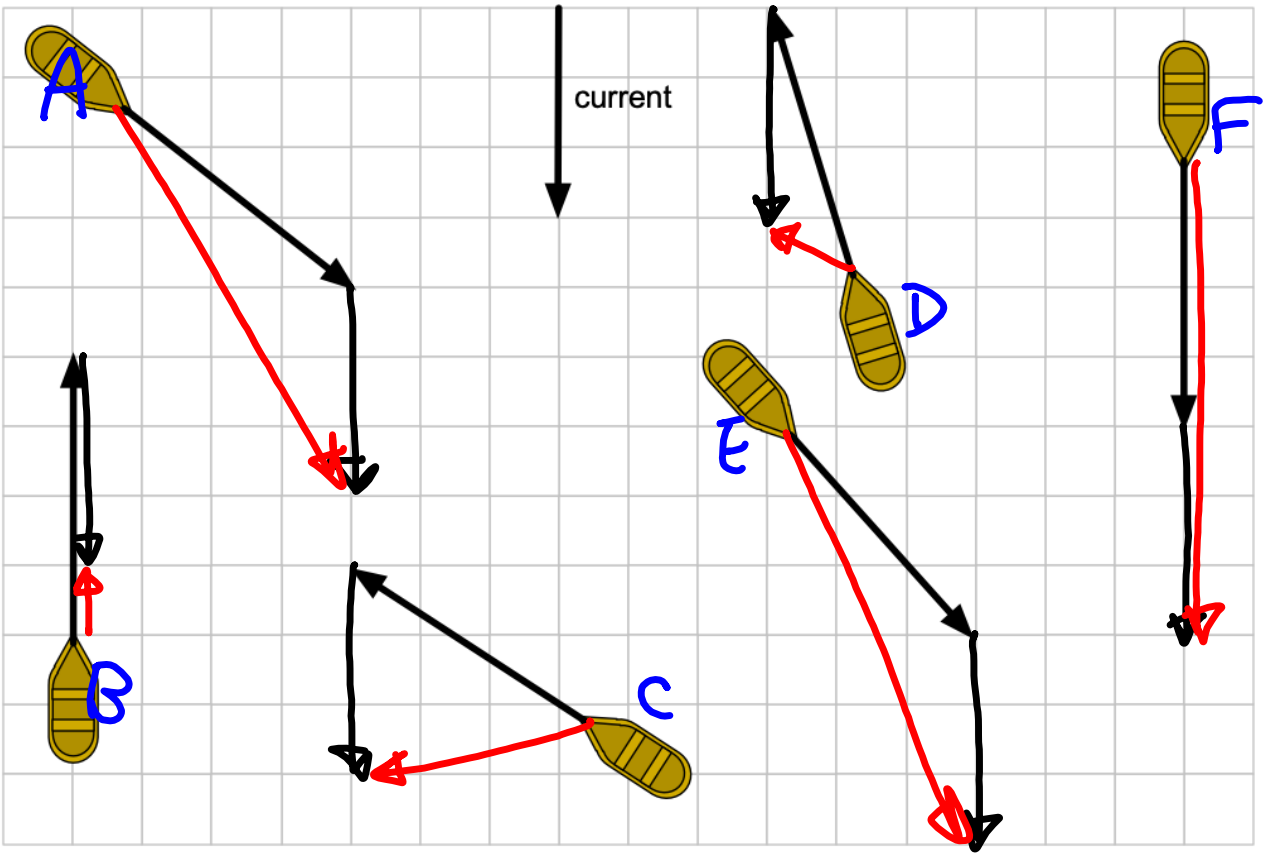
# Head-to-Tail Method

Get the resultant for any two vectors, even if they're not at 90º

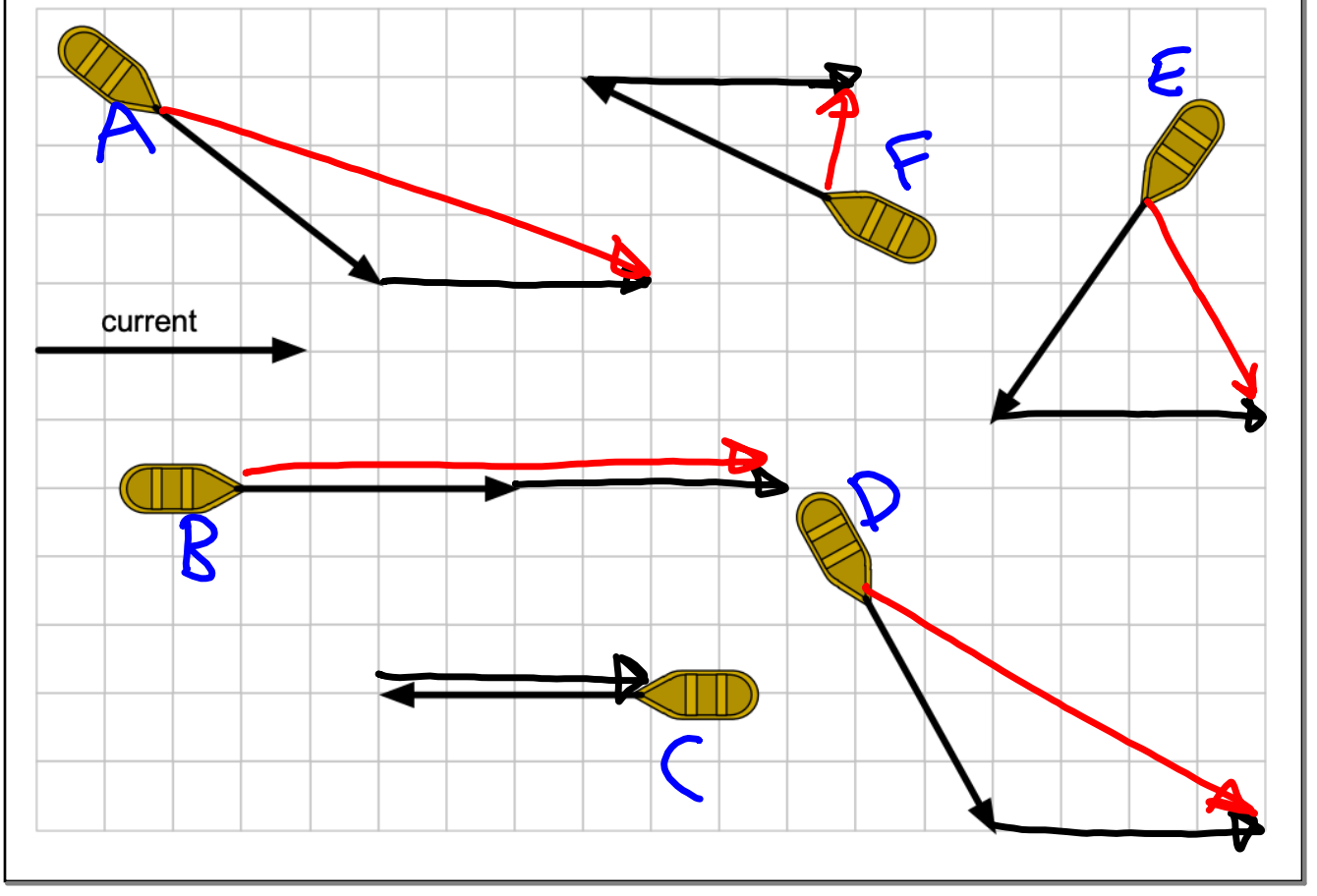
1. Put the vectors head to tail.
2. The resultant goes from the beginning of the first vector to the end of the second.



The current is 3 m/s toward the bottom of the paper. (The scale is 1 box = 1 m/s.) Draw the resultant for each of the boats.

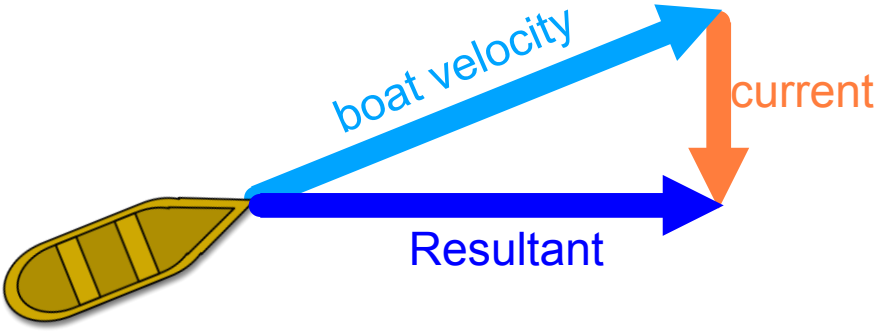


The current is 4 m/s toward the right side of the paper. (The scale is 1 box = 1 m/s.)
Draw the resultant for each of the boats.

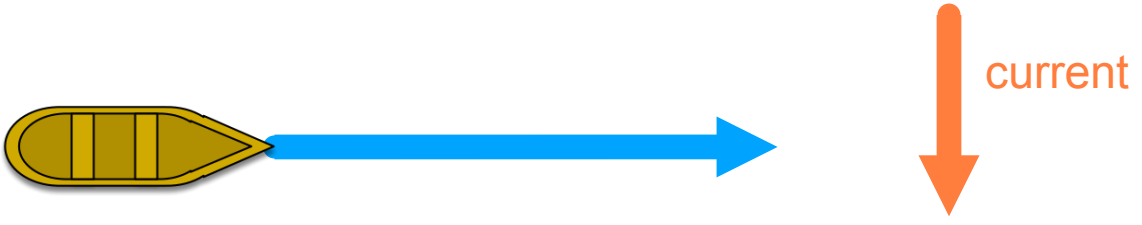


# What if you want to go straight across the river?

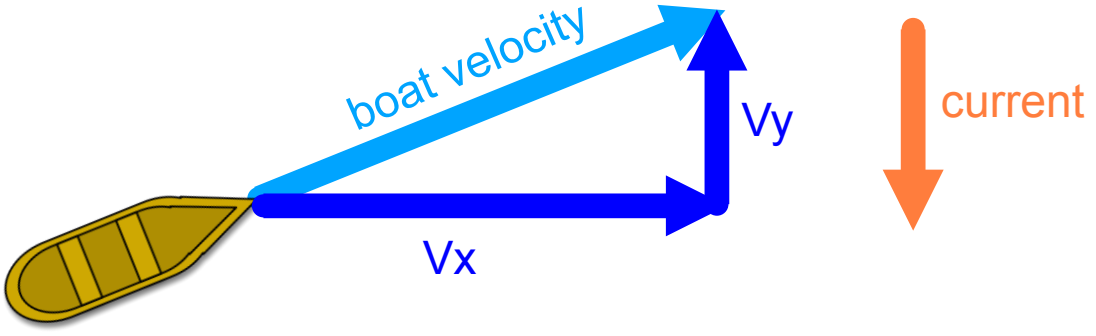
Angle your boat so that the current brings the resultant back to straight.



# What if you want to go straight across the river?

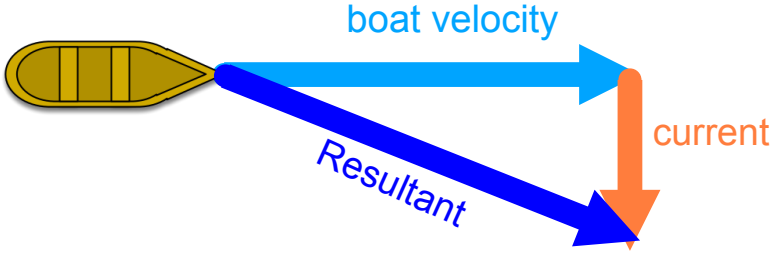


# Another way to think about it...

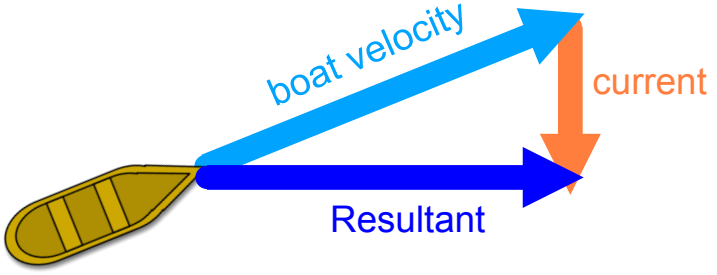



Angle your boat so that the y-component of your velocity is equal to (and cancels out) the current.

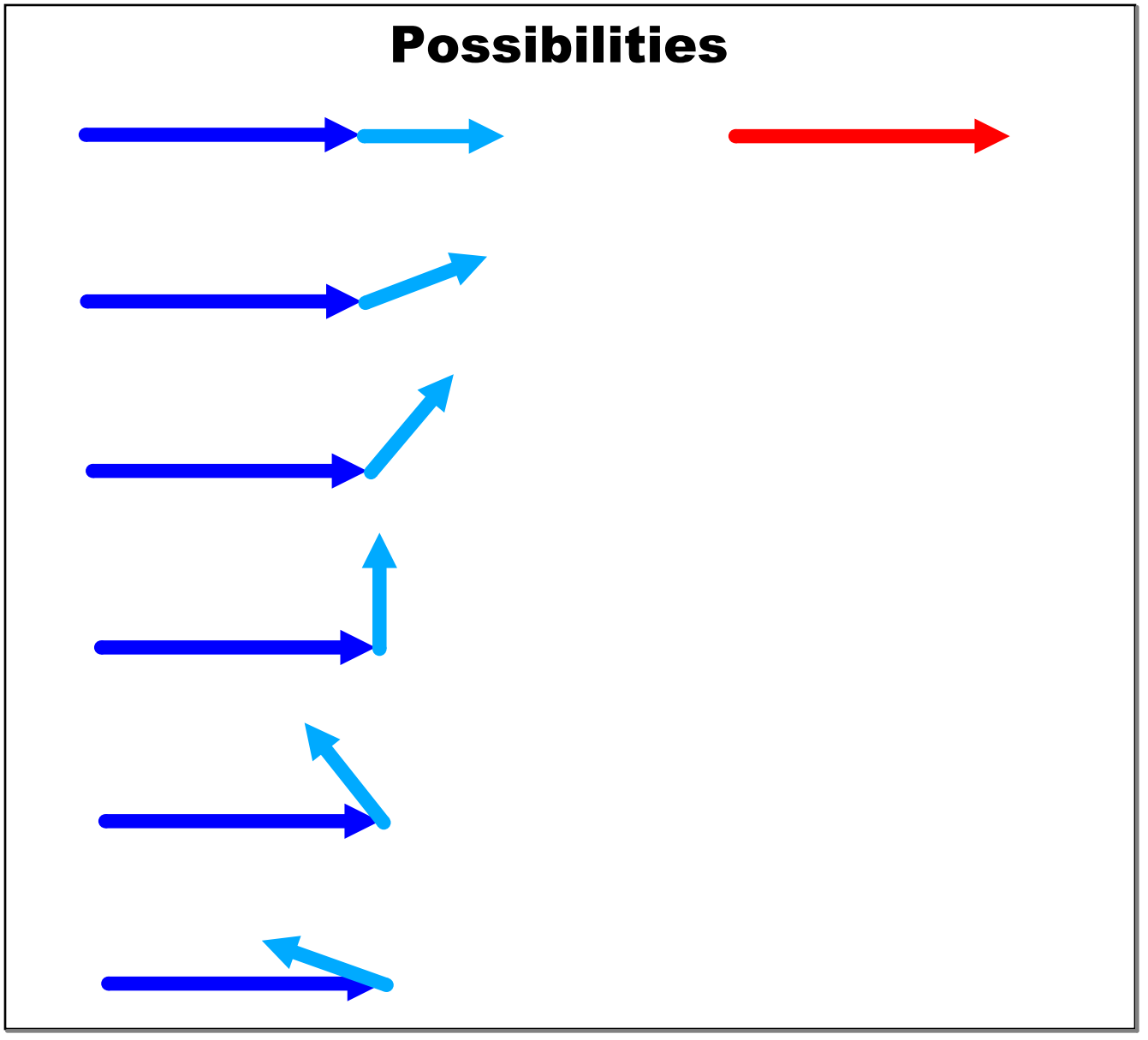
# Pros and Cons




Thrown off course, but no time delay




Straight across, but takes longer.


Possibilities