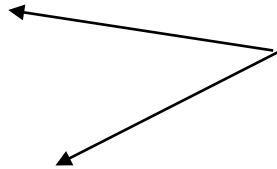


Name _____

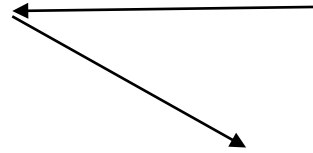
Chapter 4 Regents H review

1. For the following, draw the resultant vector. (if it's tail to tail, sketch a neat parallelogram, then the resultant)

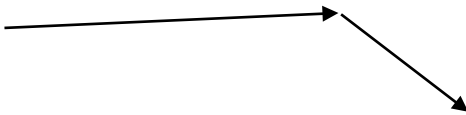
a.



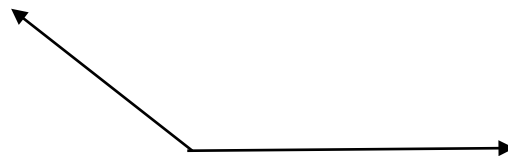
b.



c.



d.



2. Mr. Rocco is flying WEST at an airspeed of 336 km/hr into a headwind of 70. km/hr.

a. What is his resultant velocity with respect to the ground?

b. If he turns around and flies East (and the wind velocity doesn't change), what is his new resultant velocity?

3. Mrs. Baer is driving her boat at 5.9 m/s west on a river that has a 2.1 m/s current towards the south.

- Determine her resultant velocity, include direction (state it)
- Draw a clear, labeled vector diagram showing magnitudes and direction
- If she starts on the eastern bank of the river and the river is 240 meters wide, determine the amount of time it will take her to get to the other bank.
- How far "downstream" was she taken during her voyage?
- If she simply wanted to get directly across the river, what is the direction in which she should point her boat?
- Finally, how long will it cross the 240 wide river now (like part e)?

