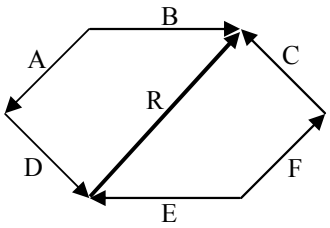
A-Day: Due Tues., 9/23 (Assigned: 9/19)
B-Day: Due Wed., 9/24 (Assigned: 9/22)

PreAP Two Dimensions 3



1. Give three combinations of vectors that would correctly produce R.

2. A hockey puck slides 3 m/s on the ice rink for 4 seconds. Find the vertical component of the hockey puck's velocity.

3. A car drives at 60^{o}. The car is going 60 mph for 1.2 hours. Find how far it went in the x-direction.

4. A boat is moving 8 m/s at –30°. If there is a current moving 3 m/s at 10°. Find the direction and speed of the boat in the current. (*Add the vectors: find the resultant.)*

5. Person A walks 55 m at 38°. Then the person turns and walks 20 m north. What direction and distance does Person B have to walk to walk straight to Person A final position?

6. From the book p. 113 Q 10, 11, 12, 15, 48, 51, 57

Use the "Projectile Motion" notes to answer the following questions. (Please READ the notes!!!!!)

7. The speed a projectile is launched is called its: _____ _____

8. If a projectile is launched 60 m/s at 42°, find the projectile's initial x and y velocities.

9. What is the projectile's acceleration in the x-direction?
10. What is the projectile's acceleration in the y-direction?

11. If object 1 is dropped from 4m and object 2 is thrown horizontally from 4m, which one hits the ground first?

12. X or Y?
    A) _____ In which direction is a projectile in freefall?
    B) _____ In which direction is the object at constant speed?
    C) _____ Which direction stops the projectile's motion?
    D) _____ From which direction do you calculate time?

13. How far the projectile moves in the x direction is known as the projectile's _____.