# Two Dimensional Motion 5
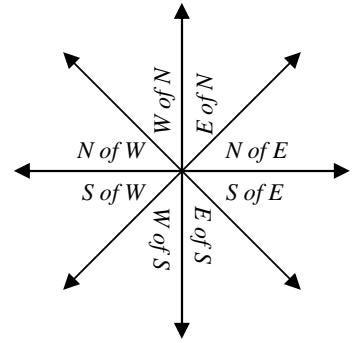
1. A person walks 40 meters south, 10 meters west, 5 meters north, then 2 meters east.
   Find the magnitude and direction of their final position in relation to their starting point.

2. How fast must a truck travel to stay beneath a plane that is moving 105 km/h at an
   angle of 25° to the ground.

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

4. Add these two vectors together: V_1= 35 m at 45° N of E; V_2 = 20 m at 30° N of E.
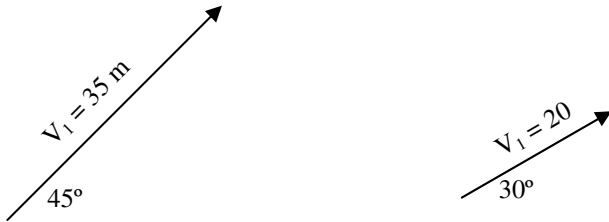
5. Add these two vectors together: V_1 = 5 m/s at 50° N of E. V_2 = 20m/s at 70° S of E. (Note the directions help above.)

6. A car drives west of north at 60°. The car is going 60 mph for 1.2 hours. Find how far west it went.

7. Give one example of the skeletal system protecting a major organ.

8. Without enough salt in your body electricity cannot flow properly, slowing down thinking and response time.
   Which body system is impaired due to a lack of salt?