Projectile Motion 1

1. Add these vectors together: $V1 = 45$ m/s at 65° E of N. $V2 = 30$ m/s at 60° S of E.

2. A bird takes off from the ground to avoid being captured by a fox. When it leaves the ground it is going 1 m/s at an angle of 30° to the ground. It accelerates 0.5 m/s^2 for 5 seconds.
   A) The Symbiotic relationship between the fox and the bird is called:
   B) If the fox continues to pursue the bird (running beneath it) how far does the fox run?

   C) If the bird ends up in a tree, how high up did it land?

3. Projectile Motion: A cannonball is fired at 40 m/s at 50° to the horizon.

   A) In $a_y =$ _____; $a_x =$ _____.

   B) Draw the vector and resolve it into its x and y components.

   C) How long does it takes for the ball to come back to the earth?

   D) Find how far the cannonball will travel from where it was shot (x-displacement).

4. Make balanced ionic compounds from the following
   A) $Be^{2+}O^{2-}$ B) $Na^{1+} + N^{3-}$ C) $Ca^{2+} + N^{3-}$

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

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