**Newton’s Third Law & Momentum Questions**

1. Watch Newton’s Third Law video located under the Files Tab in Teams.
2. Identify all interaction pairs from the forces a car experiences while it pulls a trailer.
3. A sky diver jumps from a plane and is in freefall.
   1. Neglecting air resistance, identify the interaction pair in this situation.
   2. Describe the motion of both objects that are interacting with each other.
4. You are pulling a sled by applying a 200 N force 37o above the horizontal. Identify the interaction pair and state the magnitude and direction of the second force.
5. A car travelling east collides with a car travelling west.
   1. Describe the forces each car experiences from the collision (magnitude and direction).
   2. How does the time that the eastbound car experiences the forces from the collision compare to the time that the westbound car experiences the forces from the collision?
6. Calculate the momentum for the following objects
   1. A 75 kg person walking 3 m/s
   2. A 10 g bumble bee moving 2 m/s
   3. A 2 x 106 kg freight train that is stationary
   4. A 1.67 x 10-27 kg proton moving 2 x 105 m/s