**P11**

**Newton’s Laws – Practice 1**

1.Using only your memory and current understanding, state Newton’s First Law.

2. Using your notes, check your response to question 1. If necessary, improve or correct your response to question 1.

3. Using only your memory and current understanding, state Newton’s Second Law.

4. Using your notes, check your response to question 3. If necessary, improve or correct your response to question 3.

5. What is the difference between mass and inertia? How are mass and inertia similar? Are they connected?

6. What are 4 facts that are possibly true for an object in equilibrium?

7. What is the net force acting on an object that is pulled with 240 N[Up], pushed with 154 N [Left], while experiencing a gravitational force of 85 N[Dow ]. Express the net force in vector notation, find its magnitude and direction.

8. **A**: Showing all work, calculate the net force acting on a 53 kg object. This object is experiencing a force of gravity, normal force of the same magnitude as the weight of the object, a pulling force of 450 N [L], pushing force of 300 N [R]. Express the net force in vector notation, find its magnitude and direction.

**B**: What is the object’s acceleration?