Introduction to Forces

1. Define inertia.

2. Describe inertial and gravitational mass.

3. Suppose a baseball and a table-tennis ball were traveling with the same velocity and you caught one in each hand – which would hurt more and why?

4. Forces break down in to which two groups? Give three examples of each.

5. Define and compare an object's weight and mass.

6. In the formula for the force of gravity, how is the distance between masses accounted for?

7. Is the force of gravity acting on objects in Earth's orbit?

8. Suppose you are on the ISS (which would be awesome), would you need to push a 50 kg object with a different force than a 100 kg object? Explain.