1. Explain what a normal force is and give an example.

2. Can an inanimate object (such as a table) exert a force? Can the magnitude of the force exerted by an inanimate object change? Explain and give an example.

3. If the acceleration of an object is zero, are NO forces on it? Explain.

4. How does the force block A exerts on block B compare with the force block B exerts on block A?

   Draw and label a quantitative force diagram for each block using hatch marks on the vectors to show equalities.

5. How does the force block A exerts on block B compare with the force block B exerts on block A?
Draw and label a force diagram for each block using hatch marks on the vectors to show equalities. Show all the forces acting on each block. Use the diagrams below

Forces on Block A:

\[ \text{constant } \vec{v} \]

A \hspace{1cm} B

50 g

Forces on Block B:

\[ \text{constant } \vec{v} \]

A \hspace{1cm} B

100 g

6. How does the force block A exerts on block B compare with the force block B exerts on block A?

\[ \text{constant } \vec{a} \]

B \hspace{1cm} A

100 g

50 g

Draw and label a force diagram for each block using hatch marks on the vectors to show equalities. Show all the forces acting on each block. Use the diagrams below

Forces on Block A:

\[ \text{constant } \vec{a} \]

B \hspace{1cm} A

50 g

Forces on Block B:

\[ \text{constant } \vec{a} \]

B \hspace{1cm} A

100 g

7. How does the force the magnet exerts on the refrigerator compare to the force the refrigerator exerts on the magnet?
Draw and label a force diagram for the magnet and refrigerator using hatch marks on the vectors to show equalities. Don’t forget gravity. Show all the forces acting on each block. Use the diagrams below

Forces on Refrigerator:

Forces on Magnet:

8. Determine the net force (magnitude and direction) acting on the objects below. Each object has a mass of 5 kg. Determine the acceleration (magnitude and direction) if there is one.

Net Force: __________________
Acceleration: ______________

Net Force: __________________
Acceleration: ______________

Net Force: __________________
Acceleration: ______________

Net Force: __________________
Acceleration: ______________

Net Force: __________________
Acceleration: ______________