5.6.0 Only two forces $F_1$ and $F_2$ act on an object A which has acceleration $a$. Object A also exerts a force $F_3$ on object B. Which of the following vectors should be drawn in a free-body diagram for A?

a) $F_1$ and $F_2$

b) $F_1$ and $F_2$ and $F_3$

c) $F_1$ and $F_2$ and $F_3$ and $a$

d) Components of $F_1$ and $F_2$

e) $F_1$ and $F_2$ and $a$

5.7.3. What is the meaning of the word “normal” in the term “normal force?”

a) that it is same magnitude and opposite in direction to the force of gravity on the object

b) that it is one that is encountered in everyday life

c) that it is directed perpendicular to a surface

d) that it is measurable

e) that it has a magnitude of 1 unit

5.9.2. A rock is suspended from a string and moves downward at constant speed. Which statement is true concerning the tension in the string if air resistance is ignored?

a) The tension is less than the gravity force on the rock.

b) The tension is equal to the gravity force on the rock.

c) The tension is greater than the gravity force on the rock.

d) The tension points downward.

e) The tension is zero newtons.

5.6.2. Two forces act on a hockey puck. For which orientation of the forces will the puck acquire an acceleration with the largest magnitude?

5.9.1. In which case will the magnitude of the normal force on the block be larger than $Mg$?

a) case 1 only

b) case 2 only

c) both cases 1 and 2

d) both cases 2 and 3

e) cases 1, 2, and 3