

1) **Weight,  $W = F_g$**

- a. from the center of mass
- b. down
- c.  **$90^\circ$  to Earth.**

**If there is 2 surfaces in contact:**

2) **Normal- support force,  $F_N$**

- a. up, opposite to weight
- b.  **$90^\circ$  to the surface of contact.**

3) **Frictional force,  $f_s$  or  $f_k$**

- a. **parallel** to the surface of **contact**
- b. **opposite** to **motion**.
- c.  $f_s$  (at rest)
- d.  $f_k$  (moving)

4) **Tension Force (rope)  $F_T$**

- a. in the direction of the rope
- b. start at the point of attachment
- c. away from the attached mass.