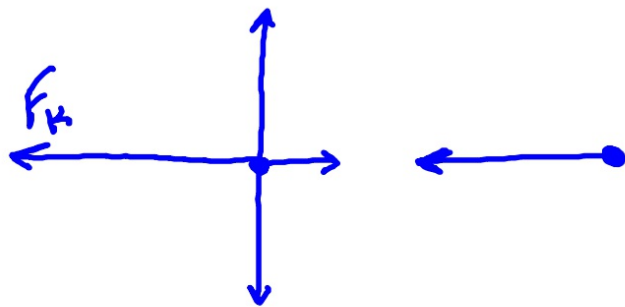
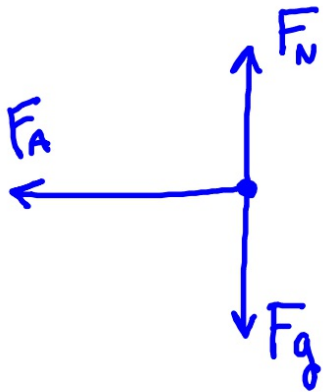


## Bellwork

Draw an FBD for an object moving to the right and slowing down.

Which way is  $\vec{a}$  ?

LEFT



## Friction

### Kinetic Friction ( $F_k$ )

- Resists an object's motion as it slides
- Depends on Normal Force
- Depends on roughness constant,  $\mu_k$
- Does not depend on surface area

$$F_k = \mu_k F_N \quad \mu_k \text{ has no units}$$

- $F_k$  has a constant value

### Static Friction ( $F_s$ )

- Keeps an object at rest
- Can vary and has a maximum value

$$F_{s\text{MAX}} = \mu_s F_N$$

