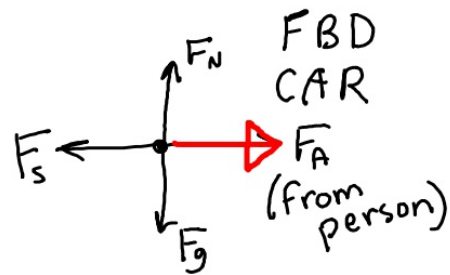
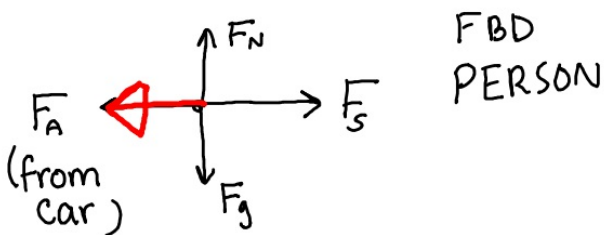
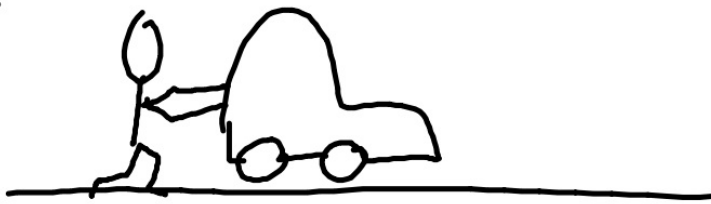


# Bellwork

you are pushing a car stuck in the mud, but it is NOT moving. Draw an FBD for you & an FBD for the car.



Pun of the day

The roofer was shingle-minded about his work.

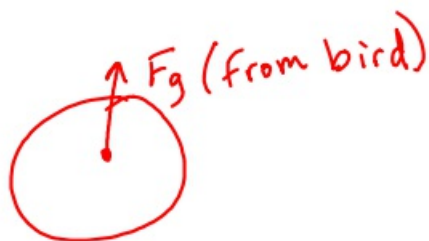
For every action there  
is an equal & opposite  
reaction. → Forces on  
different  
objects

\* SAME strength  
opposite direction

---

\* Different interactions

- Contact
- Action at a distance  
motion of birds



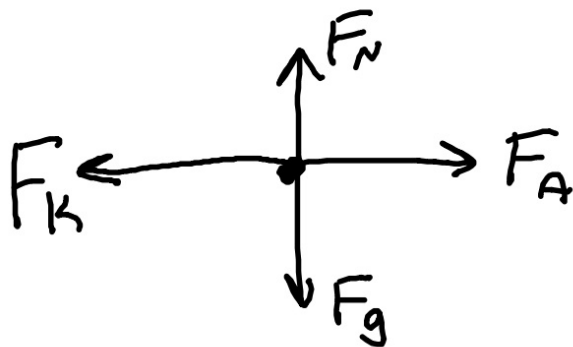
$$\frac{\sum F}{m} = \frac{m \cdot a}{m}$$

$$a = \frac{\sum F}{m}$$

# FBD (mass)



constant velocity



$$a_x = 0$$

$$\therefore \boxed{F_k} = F_A$$

$$F_k = \mu_k \cdot F_N$$

$$F_g = mg$$

$$a_y = 0$$

$$F_N = \boxed{F_g}$$