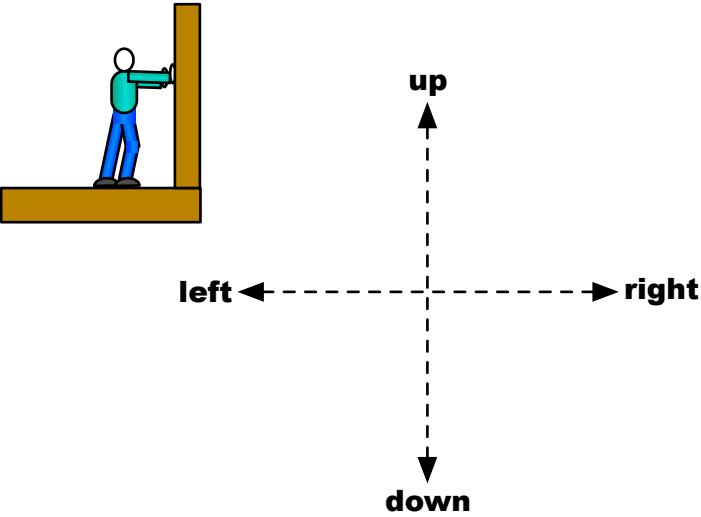
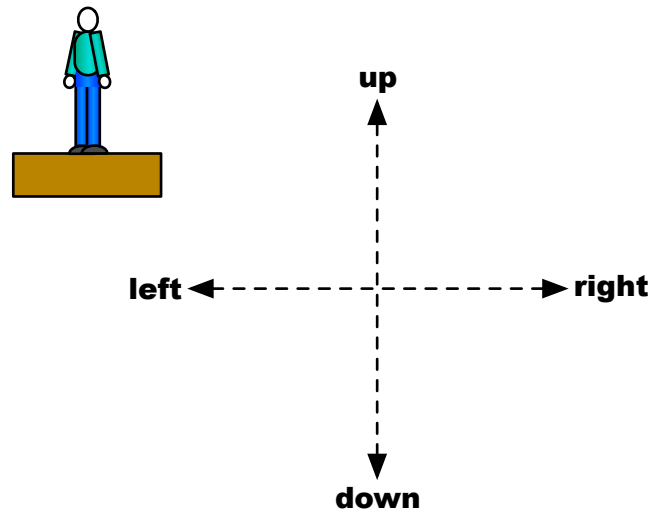


**In each case, draw an arrows on the diagram to show the person's force and the Surface (Normal) Force. Label them  $F_p$  and  $F_s$ .**

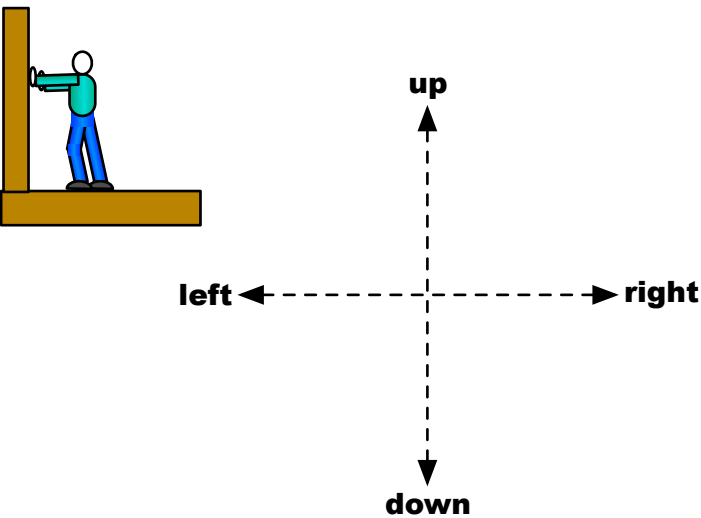
1. Which way are the person's hands pushing?  
Which way is the wall pushing?



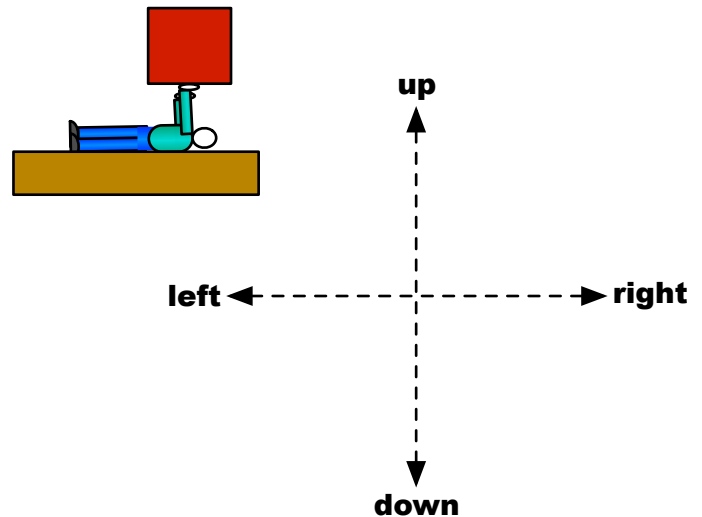
2. Which way are the person's feet pushing?  
Which way is the floor pushing?



3. Which way are the person's hands pushing?  
Which way is the wall pushing?



4. Which way are the person's hands pushing?  
Which is the RED BOX pushing?



## Questions

5. Right now, you are at rest in your seat and staying at rest. What can you conclude about the size of your weight compared to the size of the surface force from your seat?

6. If the Surface (Normal) Force on you from the seat suddenly became larger than your weight, what would happen to you?

7. If the Surface (Normal) Force on you from the seat suddenly became smaller than your weight, what would happen to you?

8. Calculate an estimate of how much Surface (Normal) Force the floor of this room is providing right now in NEWTONS.

mass of one chair approximately 8 kg

mass of one table approximately 18 kg

mass of typical person approximately 50 kg to 100 kg

mass of cart approximately 150 kg