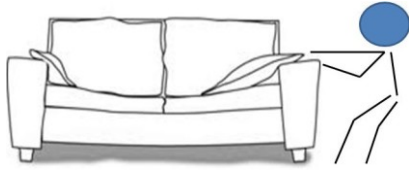


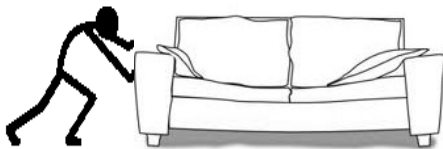
Name: \_\_\_\_\_ Group: \_\_\_\_\_

For each scenario below, complete the **first 5 steps only** for solving force problems.

A person drags a 30 kg sofa across their carpeted living room. They apply a force of 255 N to get the sofa to accelerate at  $0.67 \text{ m/s}^2$ .



What if instead, the person tries pushing the sofa? They still apply 255 N of force but end up pushing at an angle of  $15^\circ$  below the horizontal.



Totally frustrated, our room rearranger tries pulling again but this time they don't pull straight. They pull at an angle of  $15^\circ$  above the horizontal.

