Name:_____

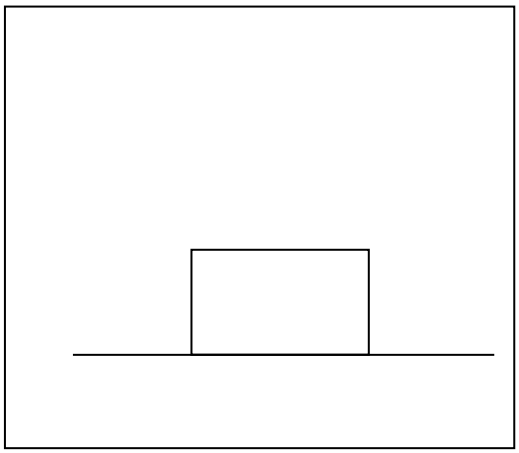
Steps to make a Force Diagram (AKA: Free-Body Diagram):

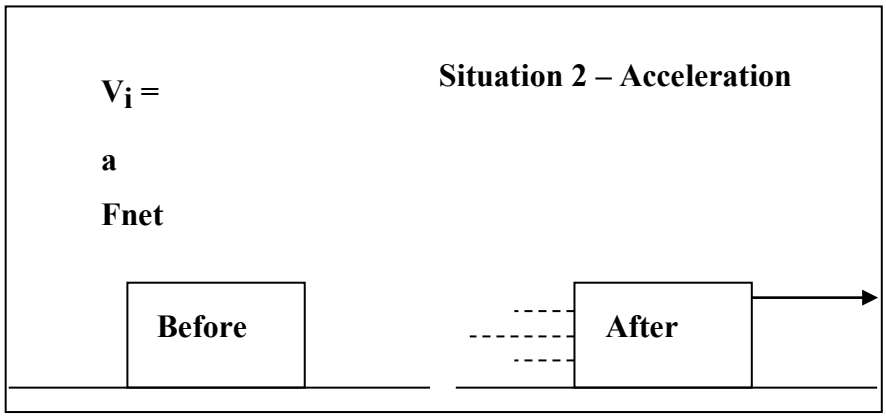
1. Define the system →

2. Define the direction of positive →

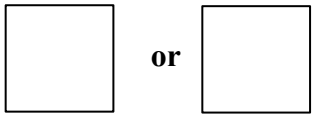
3. Label if there is Acceleration, Net Force, Initial and Final Velocity. If you have acceleration then you have Net Force

Situation 1 – No Acceleration





4. Draw a dot that represents the object in question.



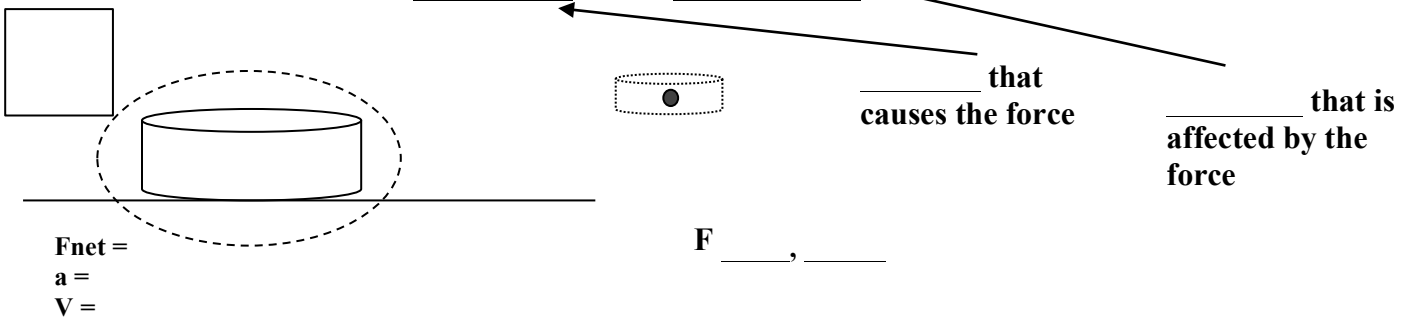
Ask yourself the following 4 questions when making a Force Diagram (Free-Body Diagram):

1. Is it on _____?

(HINT: It is always _____ for us!!! This is called "_____" **and mistakenly called "**_____")

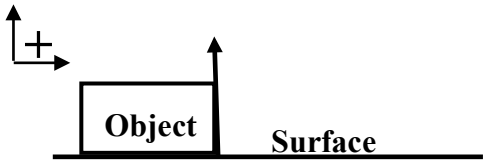
Draw an arrow straight down and label it **F** _____, _____.

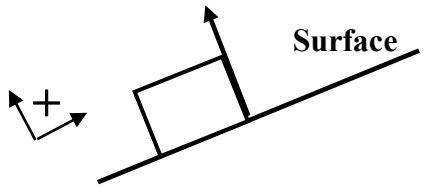
This stands for the **Force of the** _____ **on the** _____

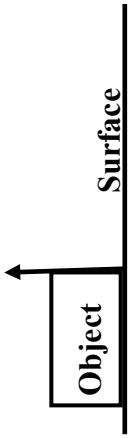


2. **Is it touching a _____?**

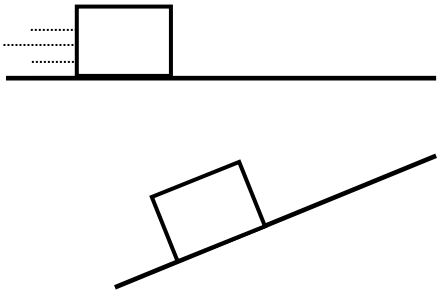
a. If yes, ALWAYS Draw the _____ (Normal means _____ degrees to surface) **Force,**
Label it as F _____, _____

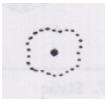


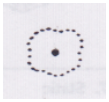


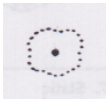


b. Is there _____? If yes, Draw the **F _____, _____ (The force is _____ to surface)**









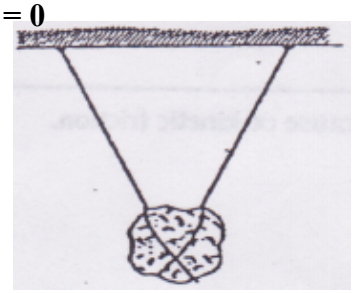
3. Is a _____, string, _____, or spring pushing or pulling it (_____)?

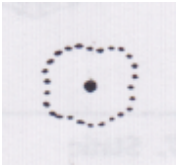
If yes draw in the Force of _____ on object pointing in the direction the rope is attached to the object.

a = 0

$F_{net} = 0$

V = 0





4. **Is _____ else _____ or _____ on the object?** Hand, foot, air, magnets, a ____ with REALLLY big teeth, a duck, a witch, a _____ swallow but not an African swallow because they are non-migratory, or comfy chair, etc … …