

Name \_\_\_\_\_

Draw only external forces acting ON the object, separate from the picture/drawing of the object.

Don't draw acceleration or velocity. Label forces carefully

Draw a separate free-body diagram for each object.

Rules for drawing forces:

- Weight always points down
- Normal force always points perpendicular to and away from the surface
- Tension force always points along rope and away from object
- Static friction always opposes the direction the object would move if friction were not present.
- Kinetic friction always opposes the direction of motion

In each case, also choose a coordinate system and write an expression for the net force in the x and y.

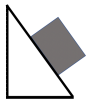
An egg fell out of a nest and is falling toward the ground.

An object lies motionless on a flat surface.

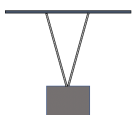
A hockey puck slides at a constant velocity on frictionless ice.

A car is coasting to the right and is slowing down.

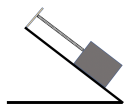
An object slides down a frictionless incline.



An object is suspended from the ceiling by two ropes.



The block is at rest.



A Force is applied to the right block on a frictionless surface.

