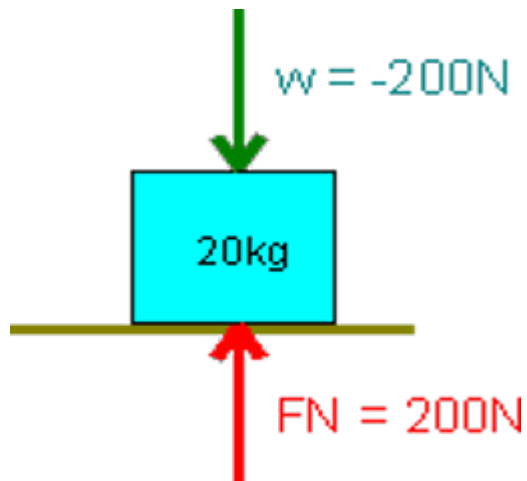


## Forces, Scatter Plots, and Polygons Worksheet

### Normal Forces

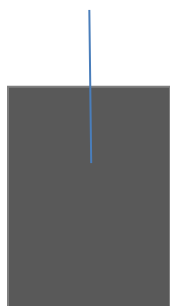
- A normal force exists between two solid objects when their surfaces are pressed together due to other forces acting on one or both objects. (For example, a box sitting on a table.)
- If an object is sitting on a table (or level surface), then the normal force is opposite and equal of the weight of the object.



### Tension Forces

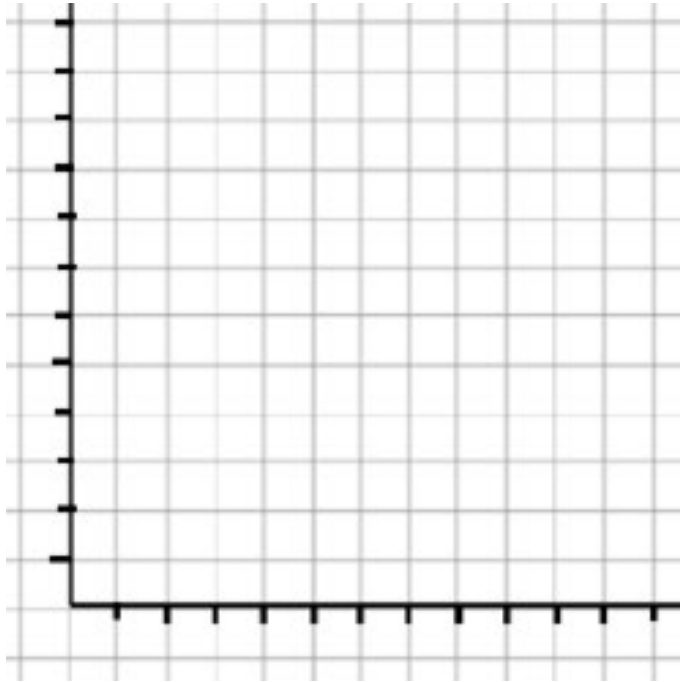
- A tension force occurs when a rope, wire, cord or similar device without slack pulls on another object.
- The tension force always points in the direction of the pull.
- $F = mg$  where  $m$  = mass (kg) and  $g$  = gravity constant ( $9.8 \text{ m/s}^2$ )

The image below is an elevator with mass 300 kg hanging from a single cable

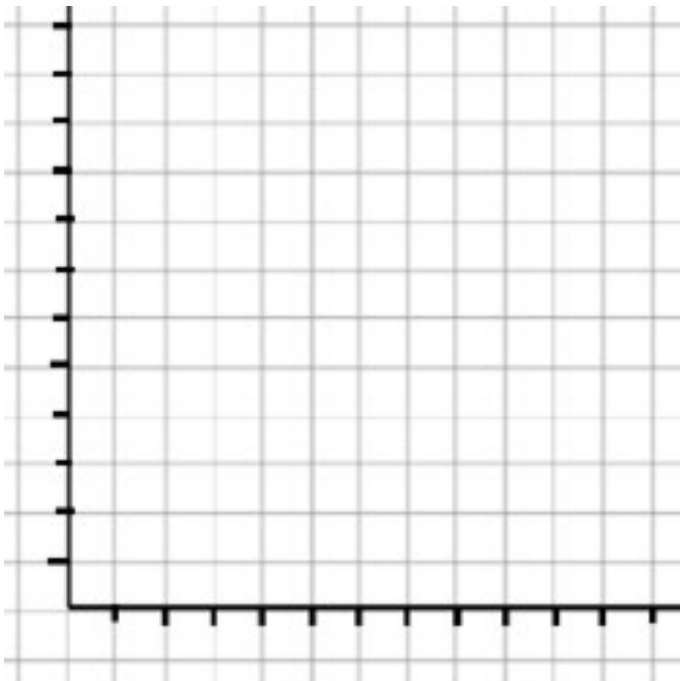


**Scatterplots**

x	y
1	2
2	4
3	6
4	8



x	y
1	0
2	1
3	2
4	3



Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

Draw each shape. What makes this shape different than the others? Which would hold the most weight?

- Triangle
- Square
- Hexagon
- Trapezoid
- Circle