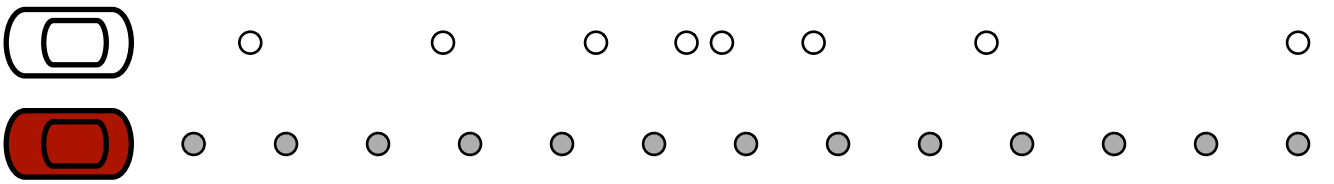
Forces Practice **name:** _____

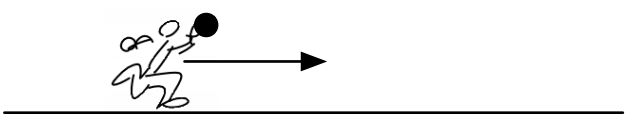
What do you remember about dot patterns?

Describe the motion of the cars.



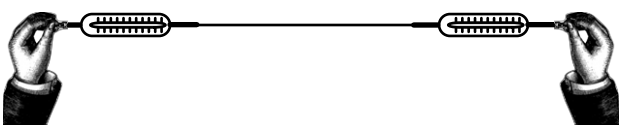
What do you remember about the 1st Law?

If he releases the ball while running, will it continue moving forward or drop straight down?



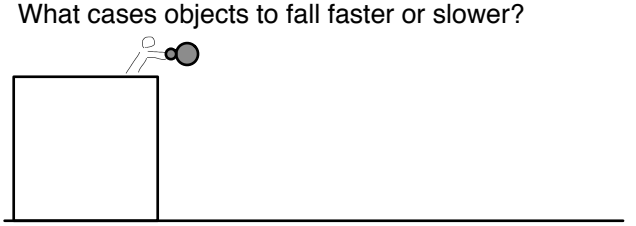
What do you remember about tension?

What is true of the tension at both ends?



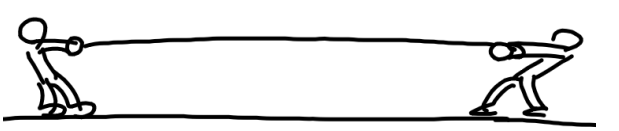
What do you remember about falling objects?

Do heavier objects fall faster?
What cases objects to fall faster or slower?



What do you remember about tug of war?

What is the most important factor?



What do you remember about the 3rd Law?

In order to go one way, what must you do?

What do you remember about Mass and Weight?

Is it a mass or a weight issue?

_____ It hurts when it hits me.

_____ It's heavy.

What do you remember about the orbiting astronauts?

Why are they weightless?

_____ There's no gravity in space.

_____ They're really far away.

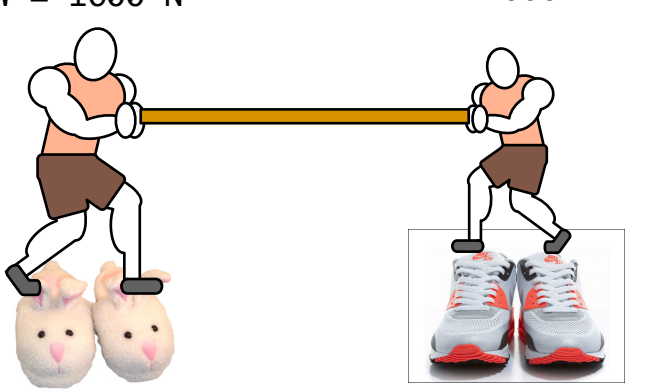
_____ Other: _____

What do you remember about friction?

Calculate who wins.

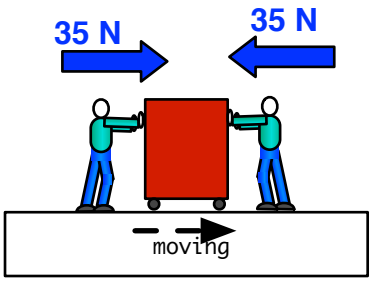
Andre the Giant
W = 1600 N

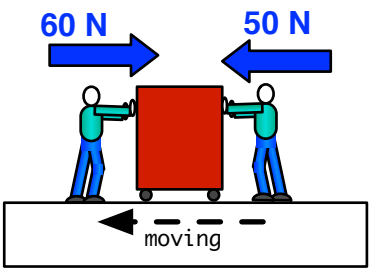
Odysseus
W = 1000 N

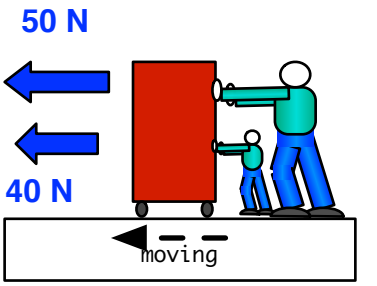


Bunny Slippers
CoF = 0.25

Air Max 90
CoF = 0.5







Fnet = _____ R or L?

_____Speeding up.

_____Slowing down.

_____Maintaining speed.

Fnet = _____ R or L?

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_____Maintaining speed.

Fnet = _____ R or L?

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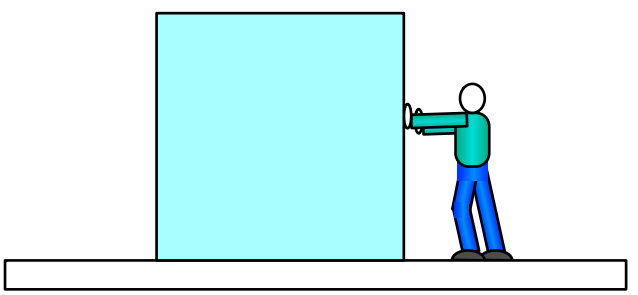
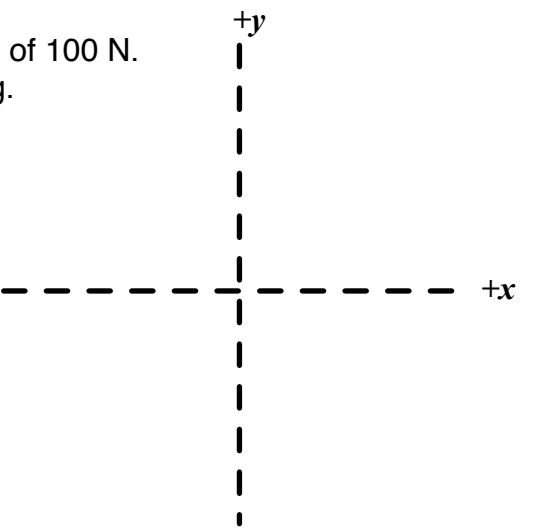
_____Slowing down.

_____Maintaining speed.

The person pushes the box across the floor to the left with a force of 100 N. The box encounters 10 N of friction. The mass of the box is 30 kg.





a) On the dotted axes, draw arrows representing the forces acting on the box. Label them.

b) Weight of the box = _____.

c) Assuming the box doesn't sink into the surface or pop up off of it,

Surface (normal) force = _____.

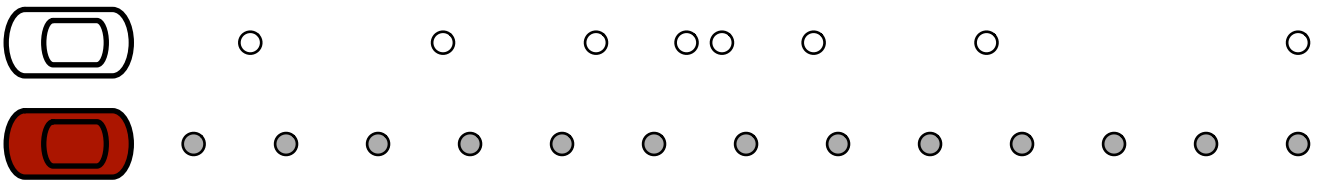
d) Calculate the net force on the box. Fnet = _____ .

e) Calculate the acceleration of the box. accel = _____.

Forces Practice **name:** _____

Dot Patterns

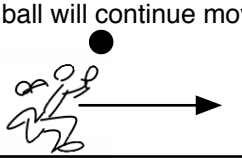
Label: speed up, slow down, maintain speed.



What do you remember about the 1st Law?

___ The ball will drop straight down.

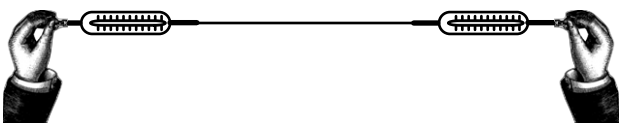
___ The ball will continue moving forward.



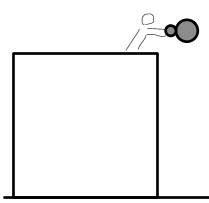
What do you remember about tension?

___ The tension is the same at both ends

____ The tension is different at each end



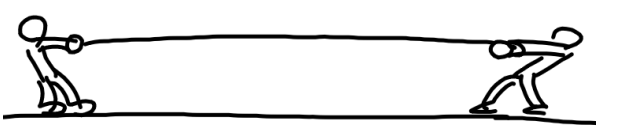
What do you remember about falling objects?



___ Heavier objects fall faster.
___ Lighter objects fall faster.
___ Both fall the same.

What do you remember about tug of war?

How do you win tug-of-war?



What do you remember about the 3rd Law?

A: You push the ground to the left.
B:

What do you remember about friction?

Calculate who wins.

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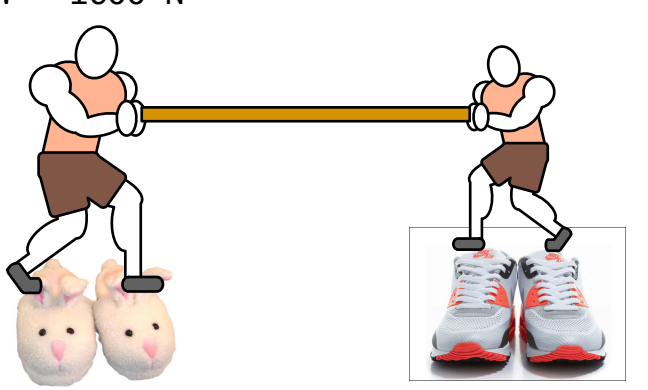
W = 1600 N

Odysseus
W = 1000 N



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CoF = 0.5

What do you remember about Mass and Weight?

MASS OR WEIGHT Things hurt when they hit.

MASS OR WEIGHT Big things are heavy.

What do you remember about the orbiting astronauts?

Why are they weightless?

_____ There's no gravity in space.

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