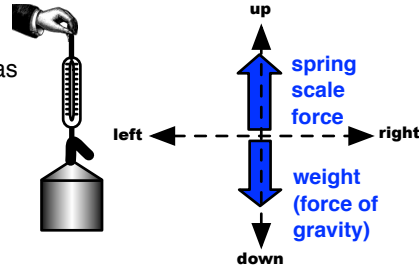


PART 1

A



1. When will the spring scale force be the same as the weight? (Check all that apply!)

- When the weight is at rest.
- When the weight is speeding up.
- When the weight is slowing down.
- When the weight maintains speed.

2. Use your spring scale and the 1 kilogram to fill in the first line of the table.

Then use reasoning to figure out what the other amounts of kilograms would weigh.

mass	weight
1 kg	
2 kg	
10 kg	
0.5 kg	
200 kg	

3. What is Earth's gravitational field strength (Newtons/kg)?

PART 2

4. Use reasoning to reverse the process now and figure out the mass in kilograms.

mass	weight
	40 N
	2 N
	3,000 N

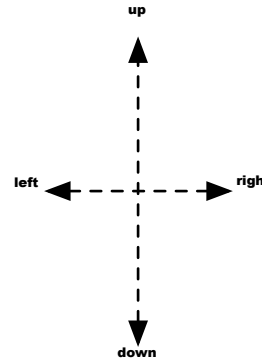
5. Use the spring scale to measure the weight of the wood block in Newtons.

Use reasoning to reverse the process now and figure out its mass in kilograms.

mass	weight

speed up slow down constant speed stay stopped

Fnet	direction

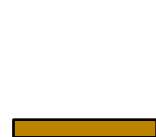
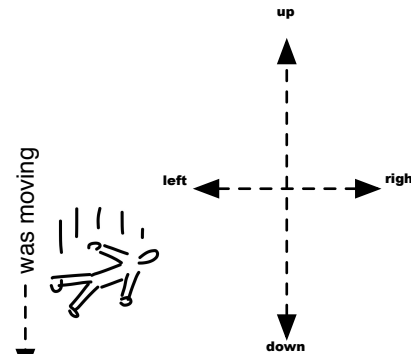


was not moving

The force of gravity (weight) on the man is 500 N, but he is supported by a force of 500 N upward from the ground.

speed up slow down constant speed stay stopped

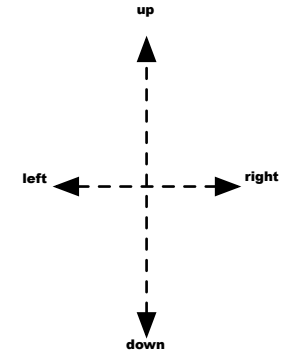
Fnet	direction



The man lets go of the rope. He still weighs 500 N, but now experiences 300 N of Drag upward from the air as he falls.

speed up slow down constant speed stay stopped

Fnet	direction

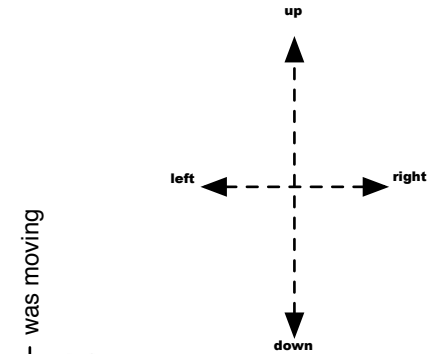


was moving

The force of gravity (weight) on the man is 500 N, but he is lifted off the ground by 700 N of Tension upward from a rope.

speed up slow down constant speed stay stopped

Fnet	direction



The man still weighs 500 N, but now experiences 900 N of force upward from the poofy pad that someone thankfully put on the ground.