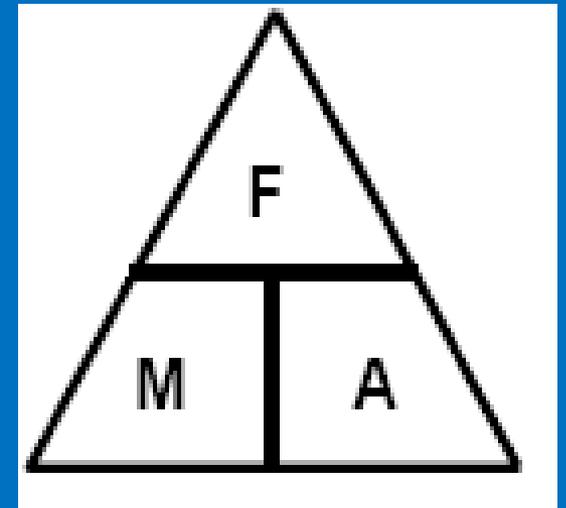


SCIENCE EXAM REVIEW- PHYSICS

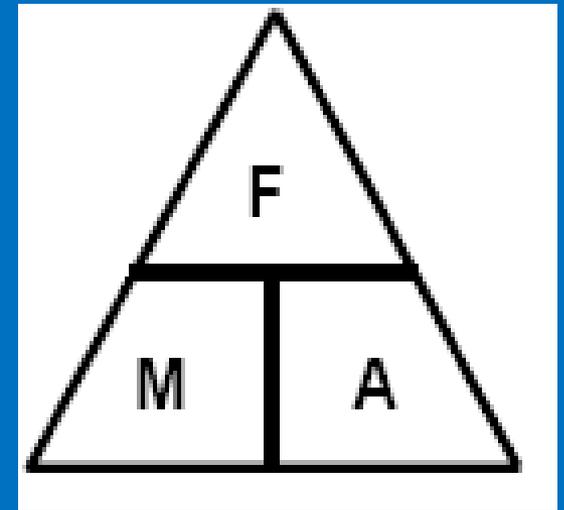


A baseball with a mass of 2 g was thrown in a game one day. If the acceleration of the snowball was 5 m/s^2 , what force did pitcher exert?

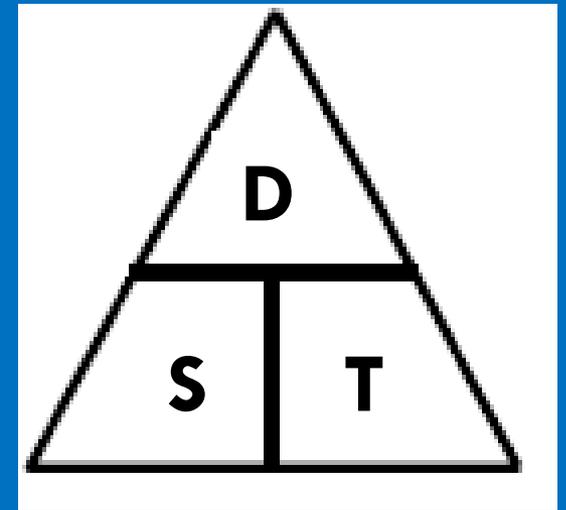


A baseball with a mass of 2 g was thrown in a game one day. If the acceleration of the snowball was 5 m/s^2 , what force did pitcher exert?

$$\mathbf{F = 10 \text{ N}}$$



A triathlete is riding his bike at 15 km/hr.
How far will he travel in 3 hours?

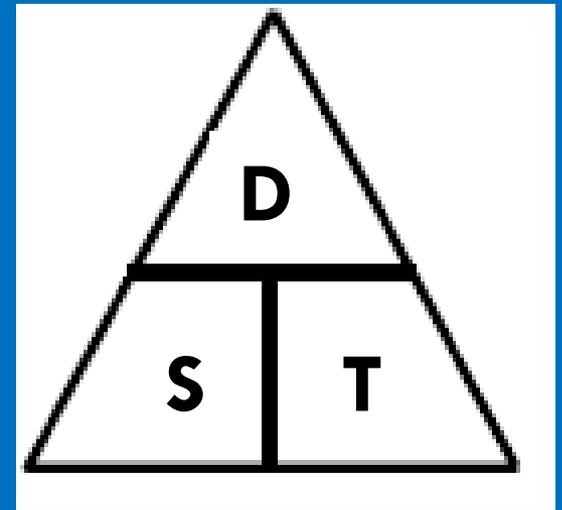


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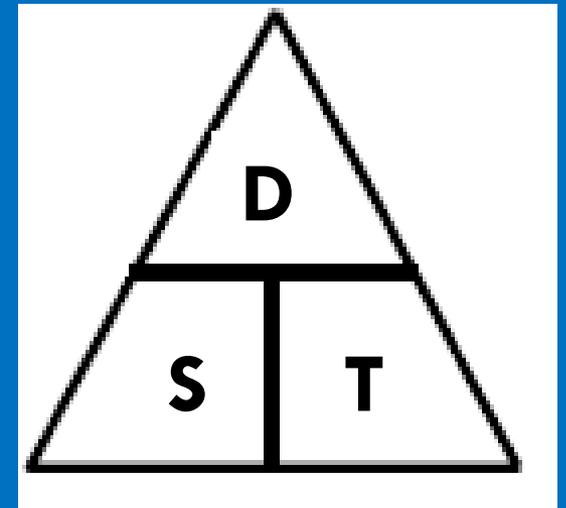
$$D = S \times T$$

$$D = 15 \times 3$$

$$\underline{D = 45 \text{ km}}$$

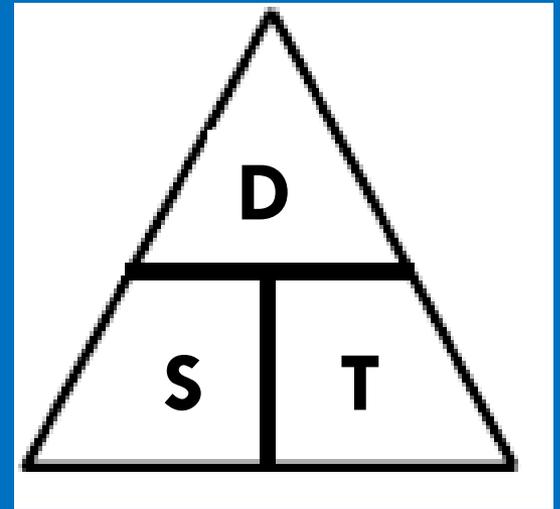


Given that the speed of an object is 25 m/sec, how much time will it take the object to move 125 m?

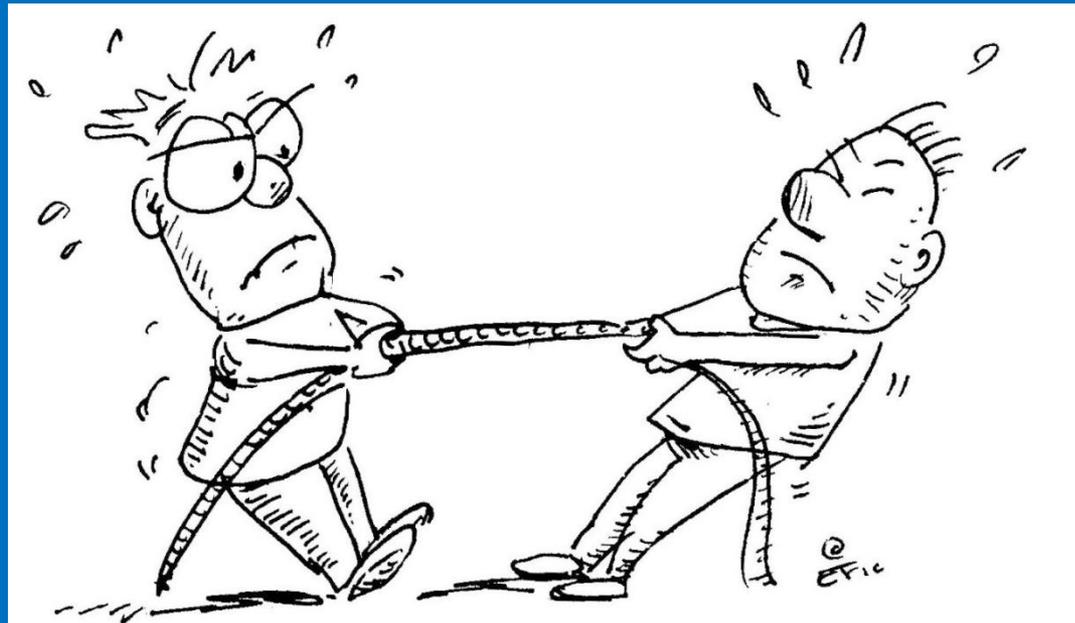


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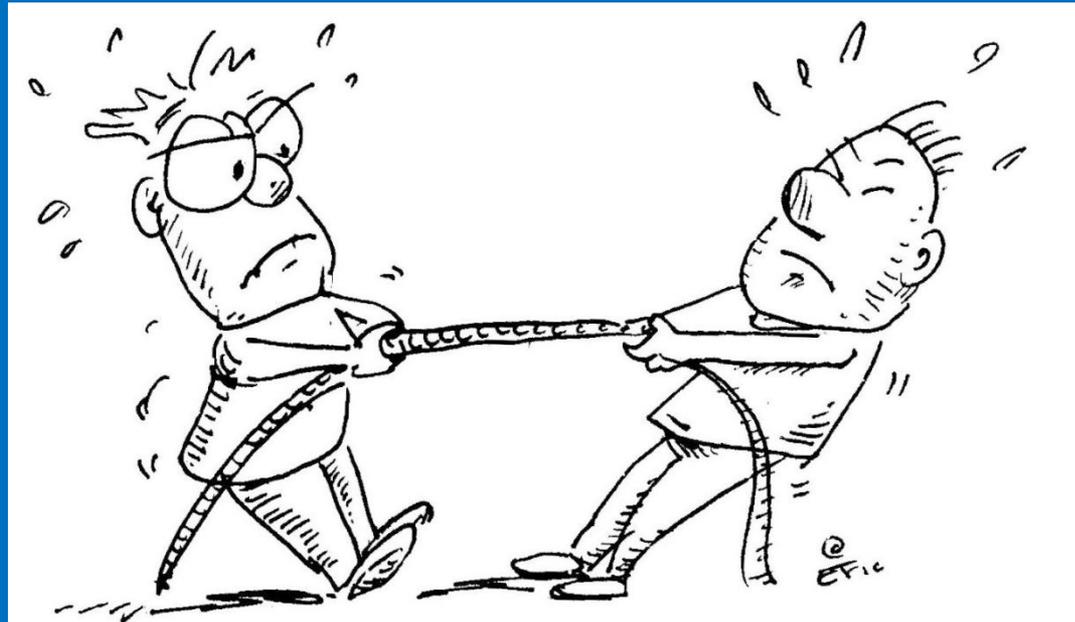
T = 5 seconds



What is the net force acting on the rope?

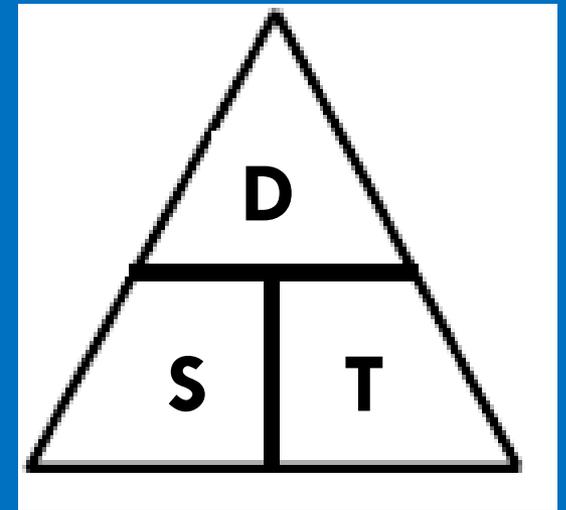


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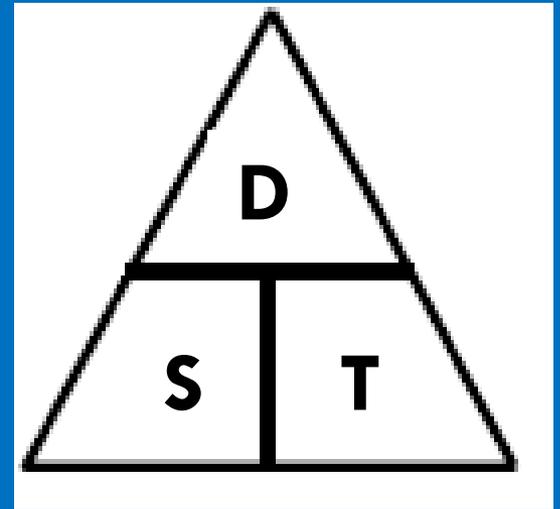
$F = 20 \text{ N}$

A marathon runner is traveling at 8 km/hr. How far will he travel in 3 hours?



A marathon runner is traveling at 8 km/hr. How far will he travel in 3 hours?

$$D = 24 \text{ km}$$



Which force is affecting objects as they fall back towards the ground? (Like the apple falling on Newton's head.)

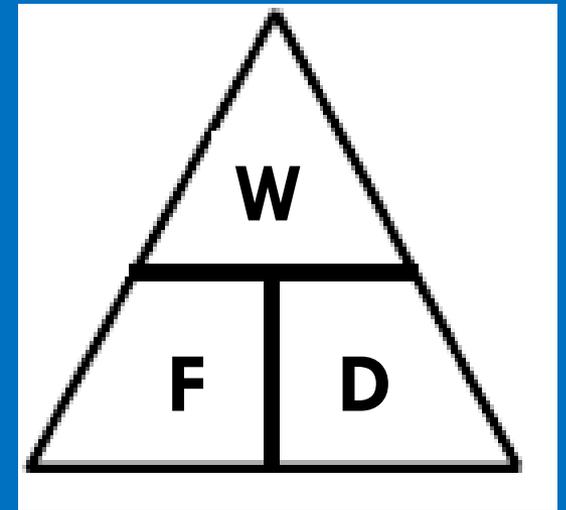


Which force is affecting objects as they fall back towards the ground? (Like the apple falling on Newton's head.)

Gravity

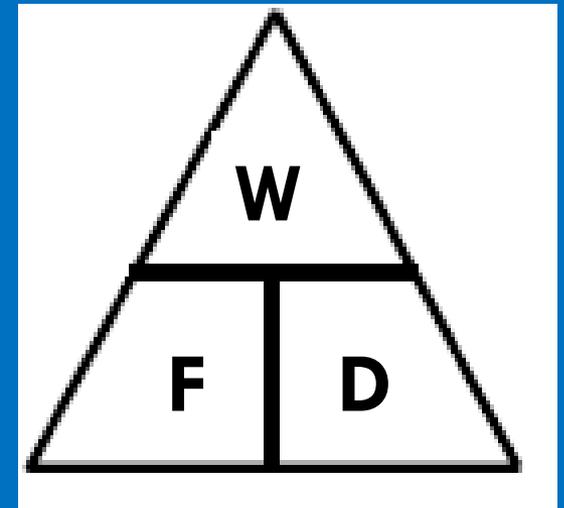


If a team of bobsledders exerts 500N of force and their sled travels 2 meters, how much work have they

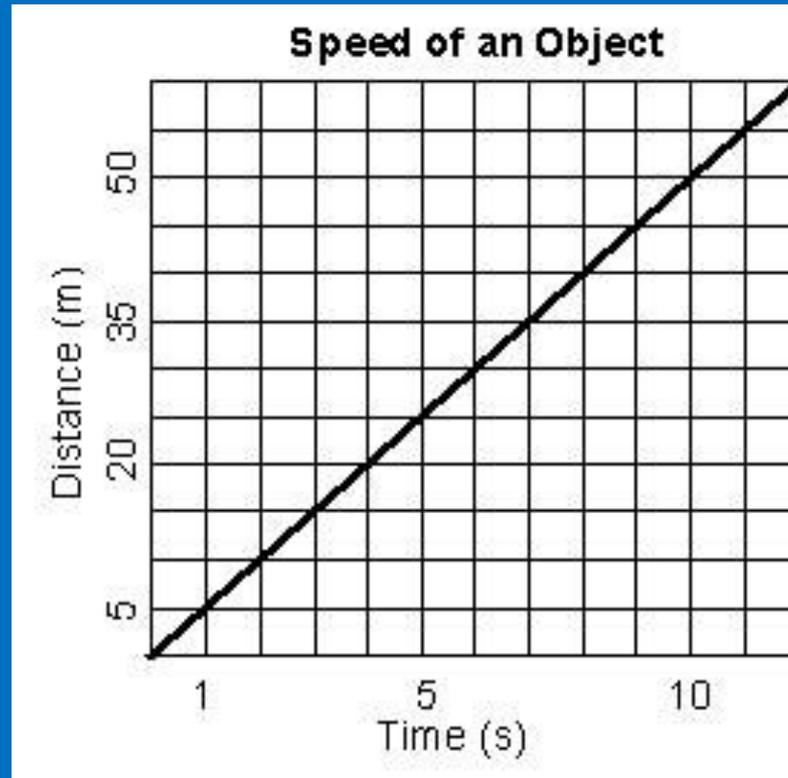


If a team of bobsledders exerts 500N of force and their sled travels 2 meters, how much work have they

$W = 1000$ joules

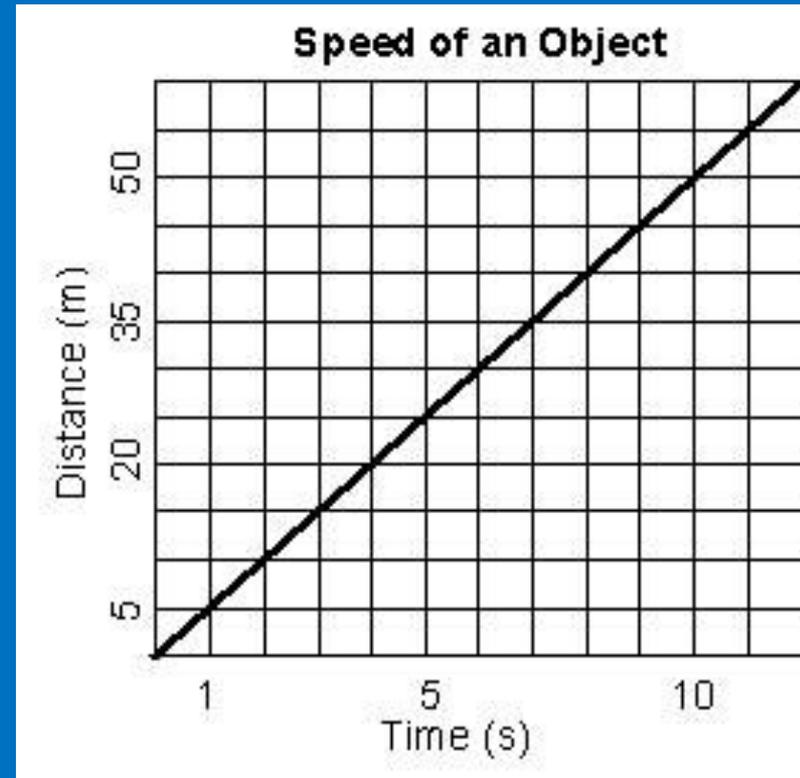


What is the speed of the object at time 10 seconds?

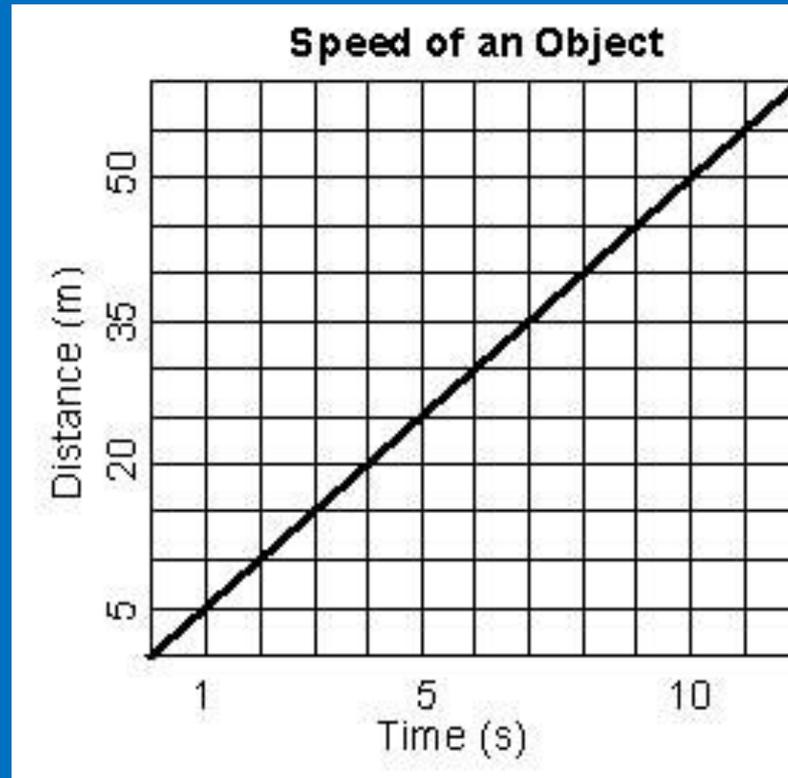


What is the speed of the object at time 10 seconds?

5 m/s

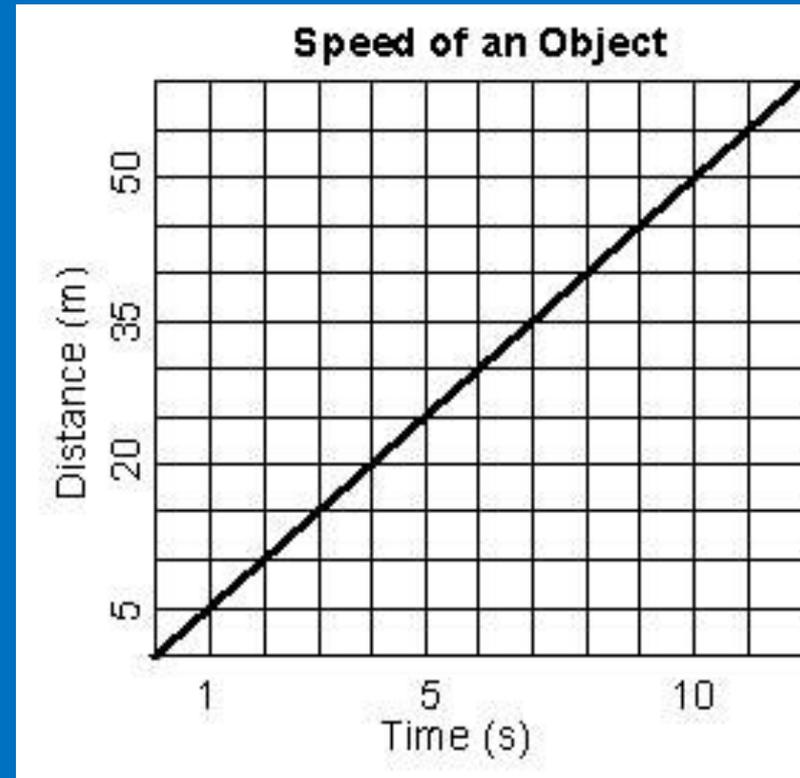


How far has the object traveled at time 7 second?



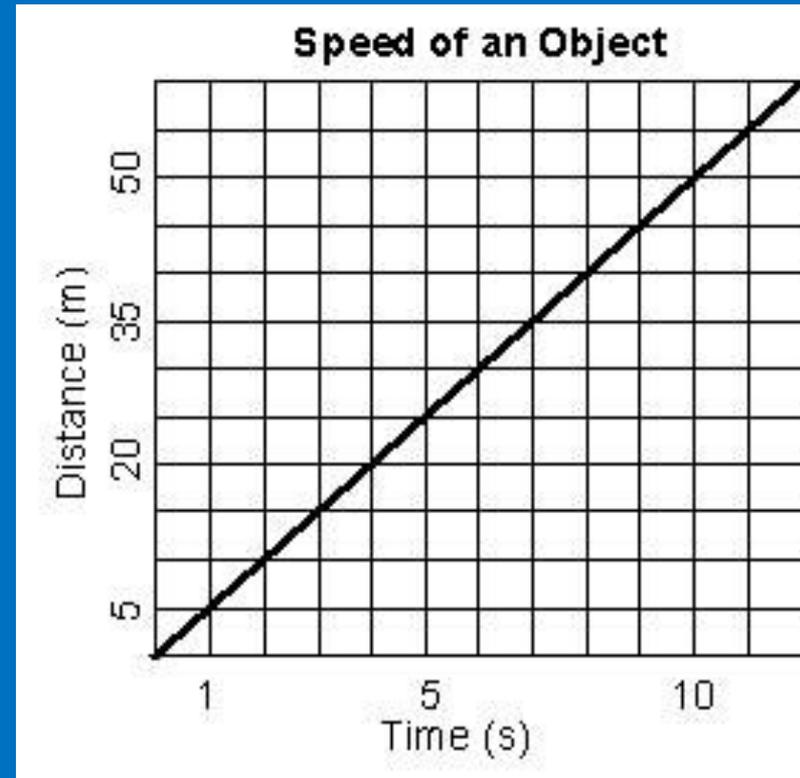
How far has the object traveled at time 7 second?

35 m



How far has the object traveled at time 7 second?

35 m



The diagram below represents which of our vocabulary words?



18 mi/hr East



The diagram below represents which of our vocabulary words?



Velocity

18 mi/hr East

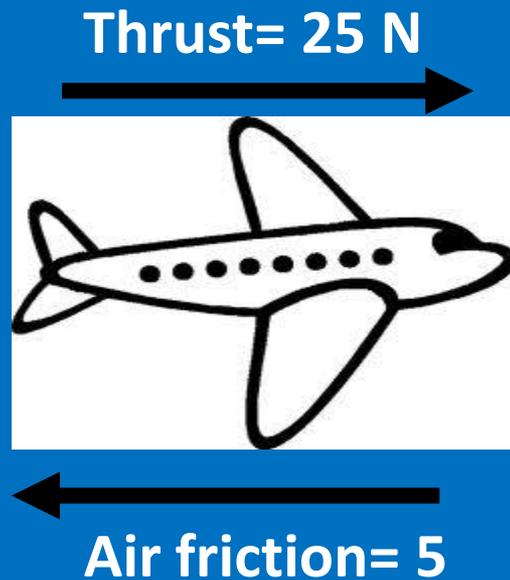
What is an objects
resistance to a change in
its motion?



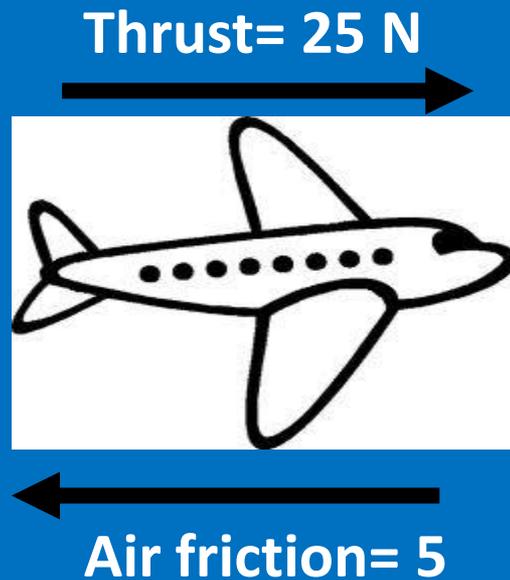
What is an objects
resistance to a change in
its motion?

Inertia

What is the net force?



What is the net force?



20 N

What is a change in
velocity?



What is a change in
velocity?

Acceleration

• The car in the picture above hits a tree and stops due to the unbalanced force. Since the driver has inertia, he continues to move forward. This example most likely represents which of Newton's Laws?



• The car in the picture above hits a tree and stops due to the unbalanced force. Since the driver has inertia, he continues to move forward. This example most likely represents which of Newton's Laws?

**Newton's
First Law**



As you jump on a trampoline, your feet exert a force on the trampoline. The trampoline also exerts a force on your feet in the opposite direction. This is an example of which of Newton's Laws?

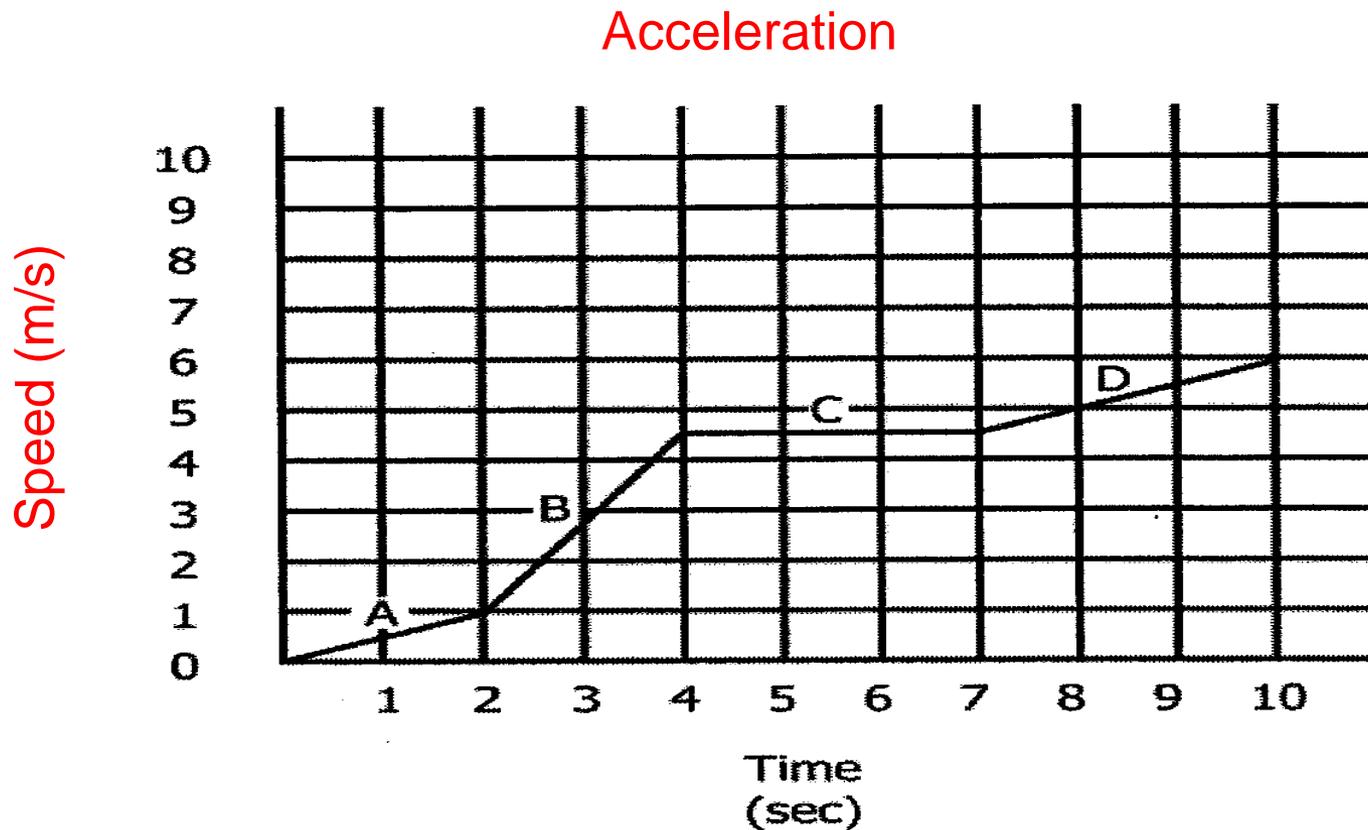


As you jump on a trampoline, your feet exert a force on the trampoline. The trampoline also exerts a force on your feet in the opposite direction. This is an example of which of Newton's Laws?

Newton's Third Law



Describe the motion on the graph at section A, B, C, and D.



Describe the motion on the graph at section A, B, C, and D.

- A- slow positive acceleration**
- B- fast positive acceleration**
- C- constant speed**
- D- slow positive acceleration**

