

Let's Play Jeopardy



Force and Motion



Forces	Newton	Motion	Gravity	Pendulum and Friction
100	100	100	100	100
200	200	200	200	200
300	300	300	300	300
400	400	400	400	400
500	500	500	500	500

Force 100

The two kinds of force are.

See Answer

Force 100 A

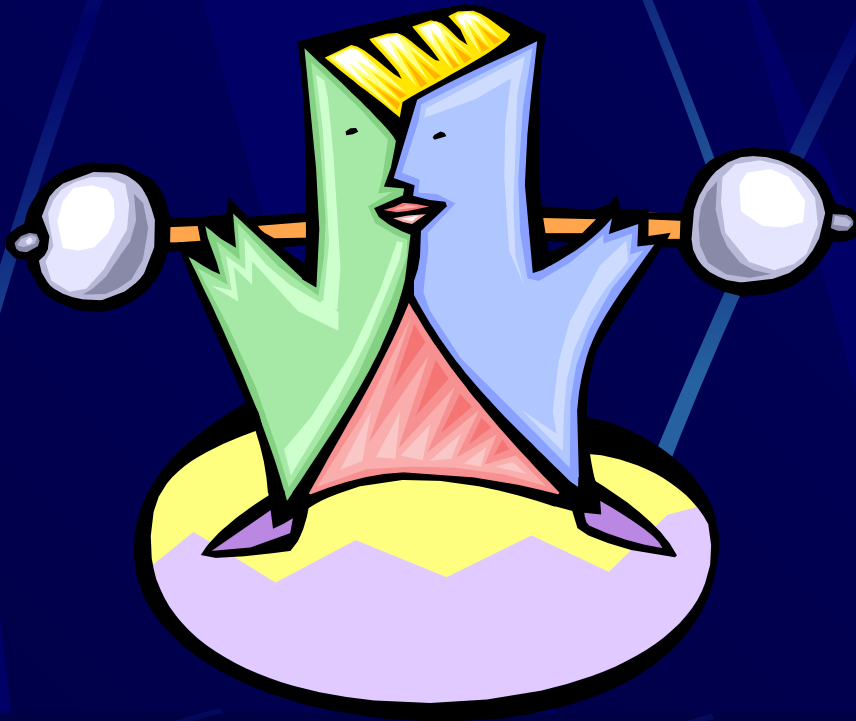
What are push and pull.



Force

200

The unit used to measure force.



Answer

Force

200 A

What is a Newton?

Force 300

What is the force of a 1 kg mass
accelerating at 5 m/s^2 ?

Answer

Force 300A

What is 5 N?

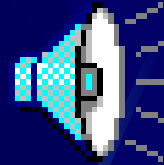


**Force
400**

A Newton can also be
described in these
units.

Answer

Forces 400A



Answer

What are $\text{kg} \times \text{m/s}^2$?

Force
500

The mass of an object that has a force of 10 N
and is accelerating at 2 m/s^2 ?

Answer

Force
500A

What is 5 Kg?

Newton 100

He is the father of
modern Physics?

Answer

Newton

100A

Who is Sir Isaac
Newton



Newton

200

Newton's first law.

Answer

Newton

200A



An object at rest
stays in rest, an
object in motion
stays in motion,
unless acted on
by an unbalanced
force.

Newton

300

Newton's Second Law.

Answer

Newton **300 A**

Force, mass, and
acceleration are
related by : $F = \text{Mass} \times \text{acceleration}$

Newton 400

Mass is measured in these units.

Answer

Newton

400A

What are grams or Kilo grams

Newton

500

Force is measured in these units.

Answer

Newton **500 A**

What is a Newton or
 $\text{kg} \times \text{m/s}^2$?

Motion 100

Give an example of
frame of reference
when you explain why
a book laying on a
table might appear to
move.

Answer

Motion **100A**

From the point of view
from space the book
is moving with the
Earth.

Motion 200

What is the velocity of
a car moving north
60 miles in half an
hour.

Answer

Motion



200A

**What is 120 miles per
hour North.**

Motion

300

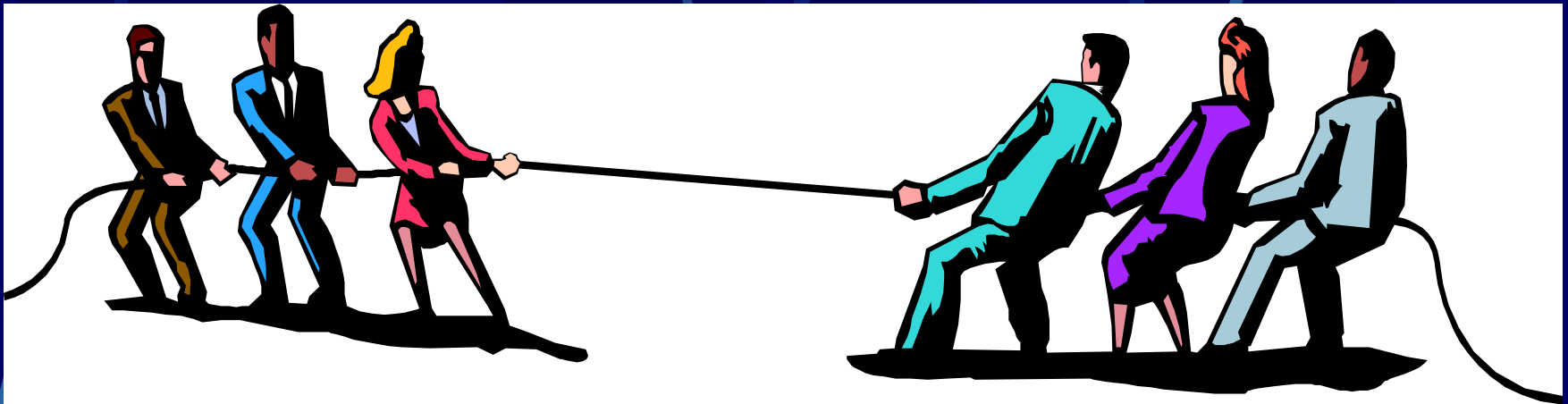
Complete this statement: For every action
there is.....

Answer

Motion

300A

An equal but opposite
reaction.



Motion 400

What is the distance a car can travel at 20 miles per hour in 3 and a half hours.



Answer

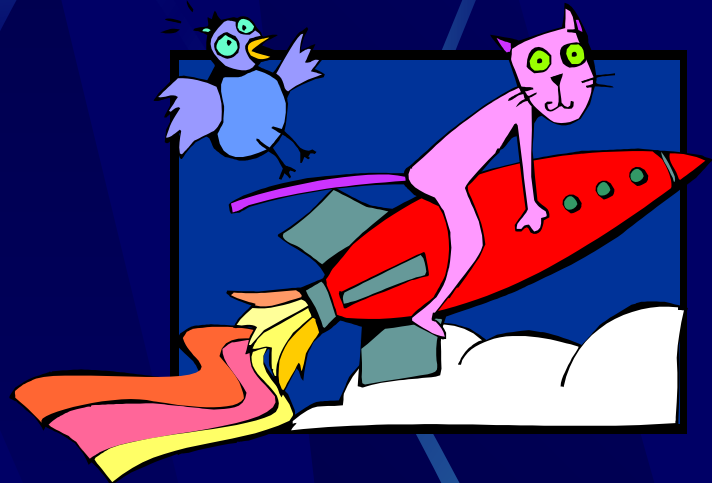
Motion **400A**

What is 70 miles?

Motion

500

How much time would
it take for a rocket to
go 1000 km at a
speed of 250
km/minute?



Answer

Motion **500A**

What is 4 minutes?

Gravity 100

The force due to gravity near the Earth is:

_____.

Answer

Gravity 100A

What is 9.8
Newtons/kg?



Gravity

What is the tension force of a (massless) string holding a pinata at a birthday party? The pinata with the candy inside has a mass of 3 kg.

Answer

Gravity 200A

What is $F = \text{Mass} \times \text{Gravity}$

$$3 \text{ kg} \times 9.8 \text{ N/Kg} = \mathbf{29.4 \text{ N}}$$

Gravity 300

Does a balloon filled
with helium defy
gravity? Why?

Answer

Gravity 300 A

No, Newton's laws apply to balloons.

The force of air pushing the balloon up is greater than the force of the balloon pushing down on the air. The forces are unbalanced.



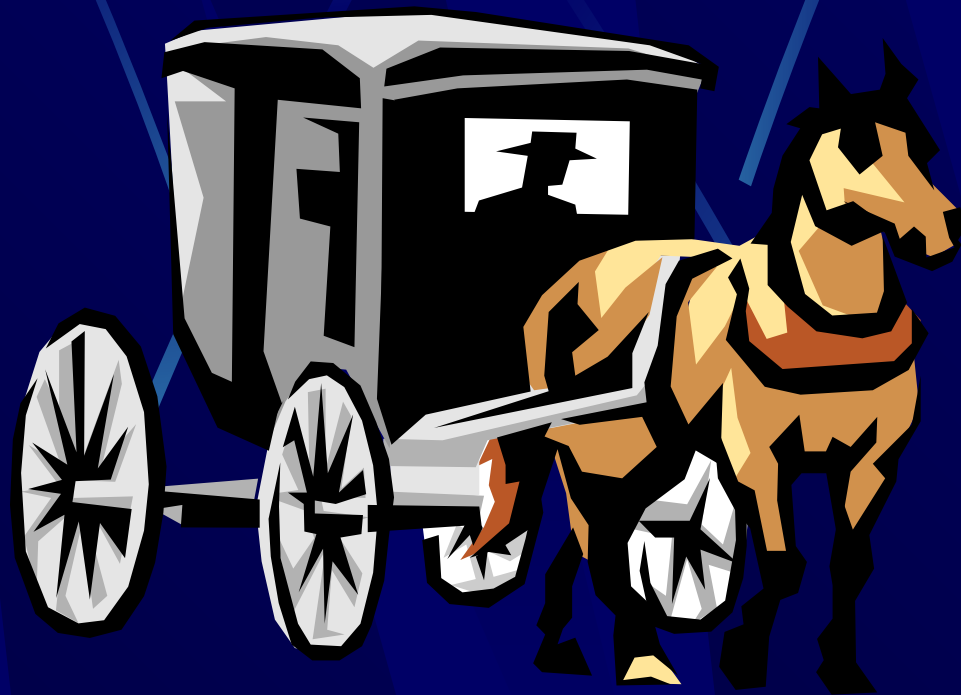
Gravity 400

What would happen if there is an balanced force between a wagon and the horse pulling the wagon?

Answer

400A

The wagon would not
move.



Gravity 500

The attraction of an
object with mass for
another object with
mass.

Answer

Gravity 500A

What is the definition of gravity?

Pendulum and Friction

100

If the length of a pendulum is increased the time it takes for one swing will.....

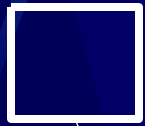
Answer

Pendulum and Friction

100A

What is increase?

Pendulum and Friction 200



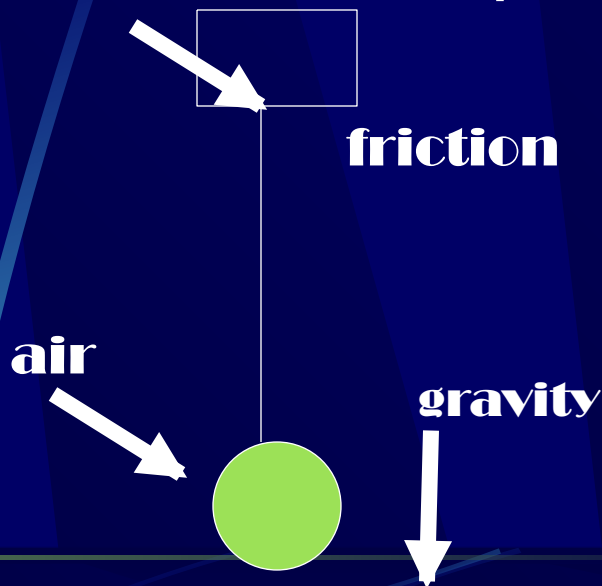
Describe three forces acting on a pendulum.



Answer

Pendulum and Friction 200A

What are gravity, the force of air resistance, and the force of friction from the hanging point of the pendulum.

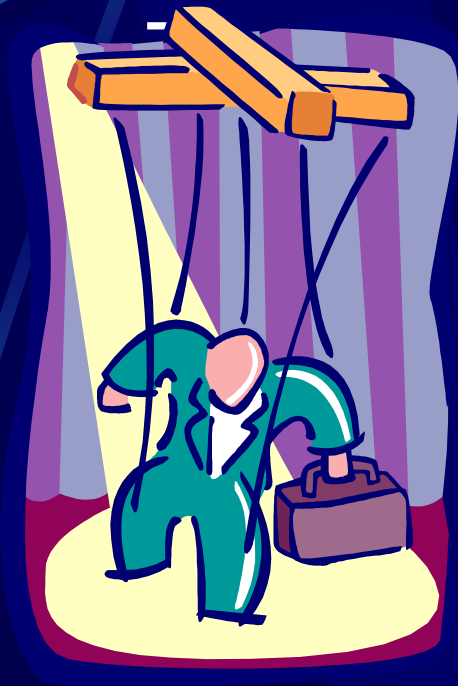


Pendulum and Friction 300

Which would have more gravitational force a fifty kg pendulum or a 10 gram pendulum?

Answer

Pendulum and Friction 300A



kg pendulum would have more
force.?

Pendulum and Friction 400

Which would swing faster a 5 kg pendulum or a 1 kg pendulum?

Answer

Pendulum and Friction 400A

Neither the speed is not dependent on the mass. It is due to the acceleration due to gravity which is the same for both pendulums

Pendulum and Friction 500

Which has more frictional
force a wagon with wheels
or without wheels.

Answer

Pendulum and Friction 500A

The wagon without wheels because there is less surface area pushing on the ground.



Scoreboard

Team 1	Team 2	Team 3	Team 4	Team 5

References

Microsoft Clipart
www.aaaclipart.com
www.soundamerica.com

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