

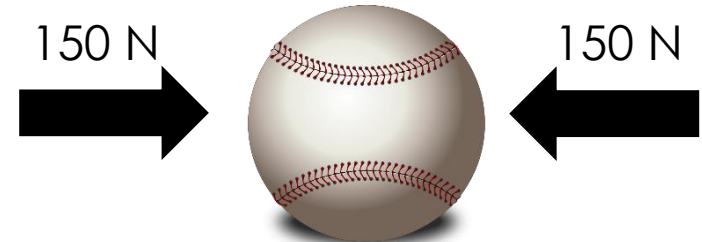
Force and Motion 1



Calculate the net force in the diagram above.

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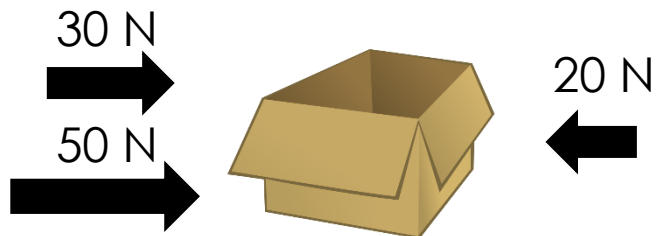
Force and Motion 2



Calculate the net force in the diagram above.

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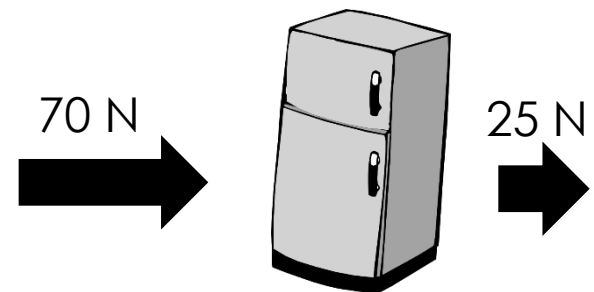
Force and Motion 3



Calculate the net force in the diagram above.

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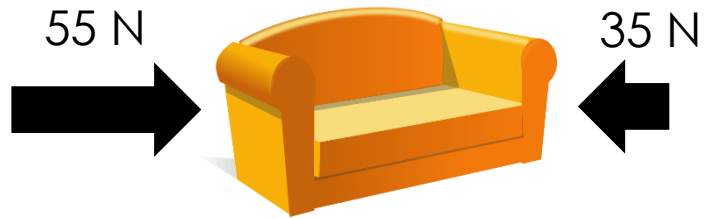
Force and Motion 4



Calculate the net force in the diagram above.

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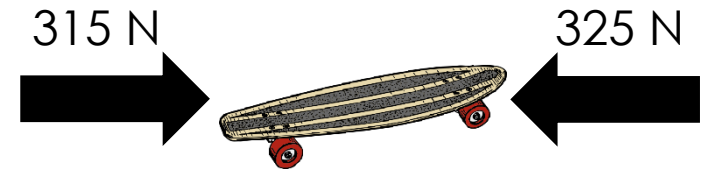
Force and Motion 5



Which direction will the sofa move when the forces are applied?

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Force and Motion 6



Which direction will the skateboard move when the forces are applied?

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Force and Motion 7



Which direction will the table move when the forces are applied?

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Force and Motion 8



Which direction will the controller move when the forces are applied?

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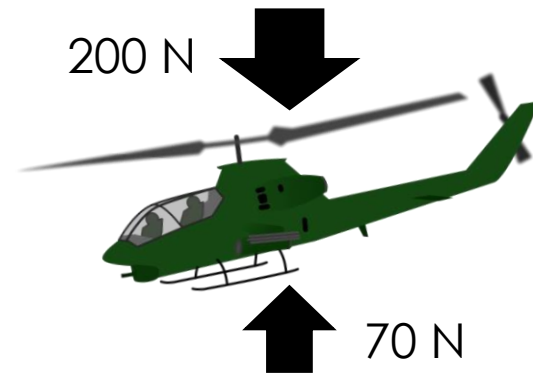
Force and Motion 9



Balanced or Unbalanced?

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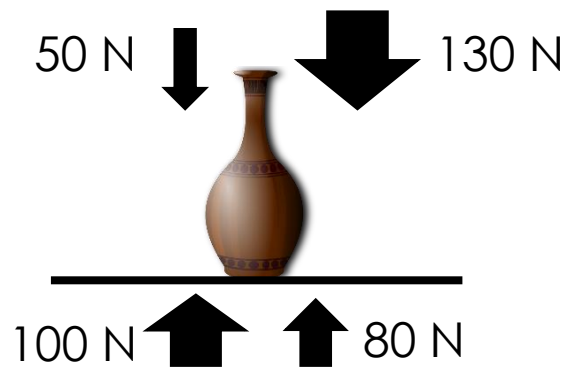
Force and Motion 10



Balanced or Unbalanced?

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Force and Motion 11



Balanced or Unbalanced?

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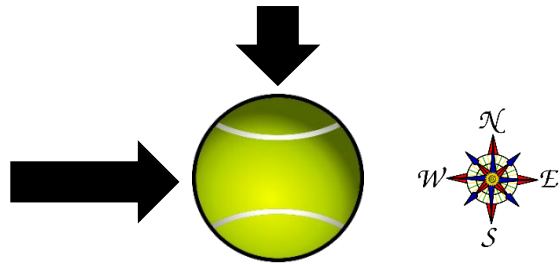
Force and Motion 12



Balanced or Unbalanced?

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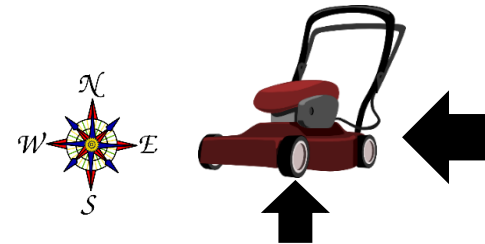
Force and Motion 13



Using the compass, which direction will the object move when the forces are applied?

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Force and Motion 14



Using the compass, which direction will the object move when the forces are applied?

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Force and Motion 15



Describe balanced forces and list one example.

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Force and Motion 16



Describe unbalanced forces and list one example.

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Force and Motion 17

FRICTION

Describe friction and list one example.

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Force and Motion 18

GRAVITY

Describe gravity and list one example.

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Force and Motion 19

FORCE

Describe force and list one example.

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Force and Motion 20

ACCELERATION

Describe acceleration and list one example.

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Force and Motion 21

INERTIA

Describe inertia and list one example.

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Force and Motion 22

MOTION

Describe motion and list one example.

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Force and Motion 23

SPEED

Describe speed and list one example.

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Force and Motion 24

VELOCITY

Describe velocity and list one example.

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Force and Motion 25



Which of Newton's 3 Laws of Motion explains a satellite orbiting the earth?

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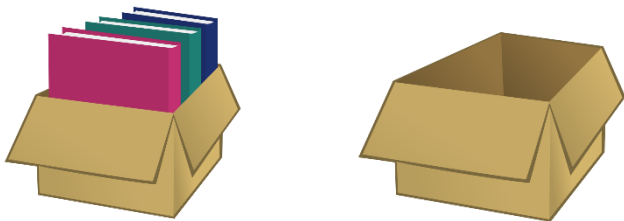
Force and Motion 26



Which of Newton's 3 Laws of Motion explains a rocket blasting off into space?

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Force and Motion 27



Which of Newton's 3 Laws of Motion explains why it requires more force to push a full box than an empty box?

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Force and Motion 28



Which of Newton's 3 Laws of Motion explains rowing a boat?

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Force and Motion 29



Which of Newton's 3 Laws of Motion explains a clock hanging on the wall?

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Force and Motion 30



Which of Newton's 3 Laws of Motion explains why pushing an empty grocery cart is easier than pushing a full one?

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Force and Motion 31

What is the formula for calculating force?

FORCE = ?

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Force and Motion 32



Calculate the force needed to cause a 500 kg car to accelerate 10 m/s².

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Force and Motion 33



Calculate the force needed to cause a 6 kg bowling ball to accelerate 20 m/s^2 .

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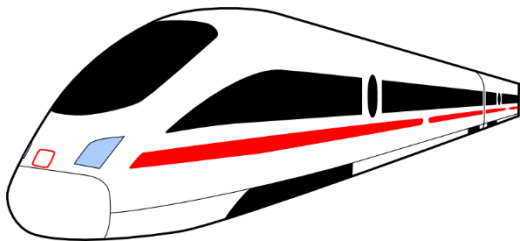
Force and Motion 34

What is the formula for calculating speed?

SPEED = ?

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Force and Motion 35



Calculate the speed of a train that traveled 400 miles in 5 hours.

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Force and Motion 36



Calculate the speed of a sprinter who ran 200 meters in 20 seconds.

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Force and Motion 37

Is this an example of Speed, Velocity, or Acceleration?

65 mi/hr

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Force and Motion 38

Is this an example of Speed, Velocity, or Acceleration?

15 m/s²

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Force and Motion 39

Is this an example of Speed, Velocity, or Acceleration?

30 km/hr South

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Force and Motion 40

Is this an example of Speed, Velocity, or Acceleration?

**A plane flying 300 mi/hr
West toward California.**

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Force and Motion 41

Is this an example of Speed, Velocity, or Acceleration?

**A truck moving
20 m/s.**

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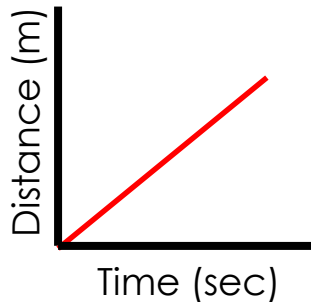
Force and Motion 42

Is this an example of Speed, Velocity, or Acceleration?

**A car speeding
up to get onto
the freeway.**

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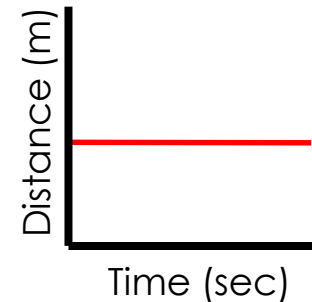
Force and Motion 43



Describe the motion in the graph above.

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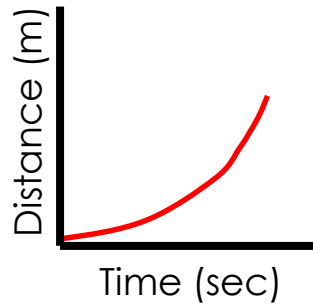
Force and Motion 44



Describe the motion in the graph above.

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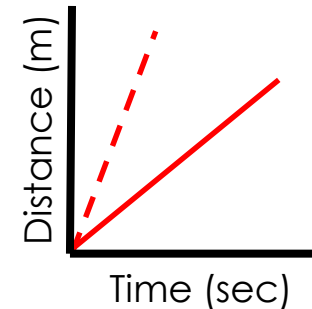
Force and Motion 45



Describe the motion in the graph above.

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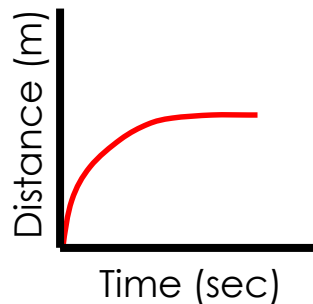
Force and Motion 46



Which line (dashed or solid) shows the object with the greater speed?

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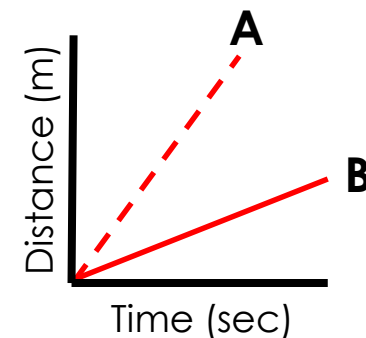
Force and Motion 47



Describe the motion in the graph above.

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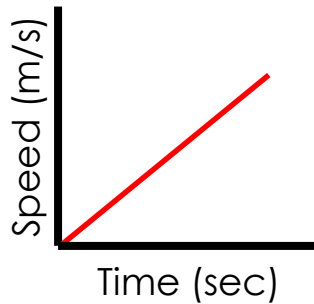
Force and Motion 48



Which runner (A or B) won the race in the graph above?

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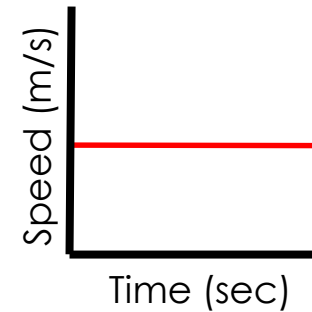
Force and Motion 49



Describe the motion in the graph above.

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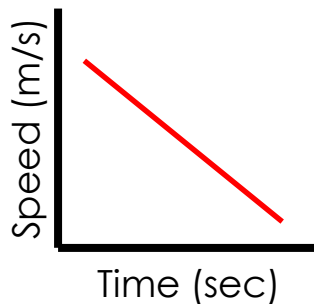
Force and Motion 50



Describe the motion in the graph above.

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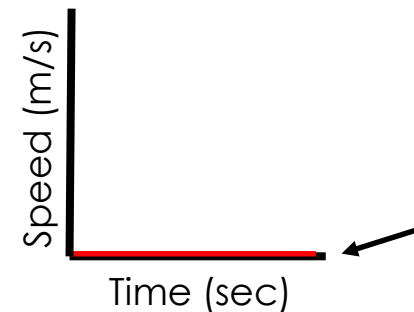
Force and Motion 51



Describe the motion in the graph above.

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Force and Motion 52



Describe the motion in the graph above.

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