

# CRCT REVIEW

NEWTONS' LAWS  
FORCE MOTION/

VELOCITY DISTANCE

ELECTROMAGNETIC SPECTRUM

DETHLOFF

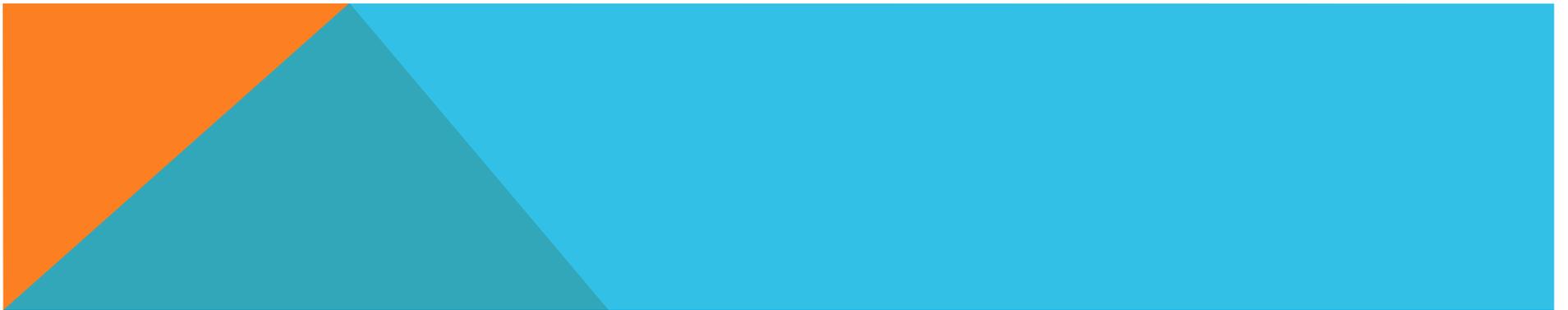
**Owen and Daniel drive with their family to Austin, Texas to watch the Longhorns basketball team. If their family drives 120 miles and it takes them 2 hours to get there, what is the speed of their car?**



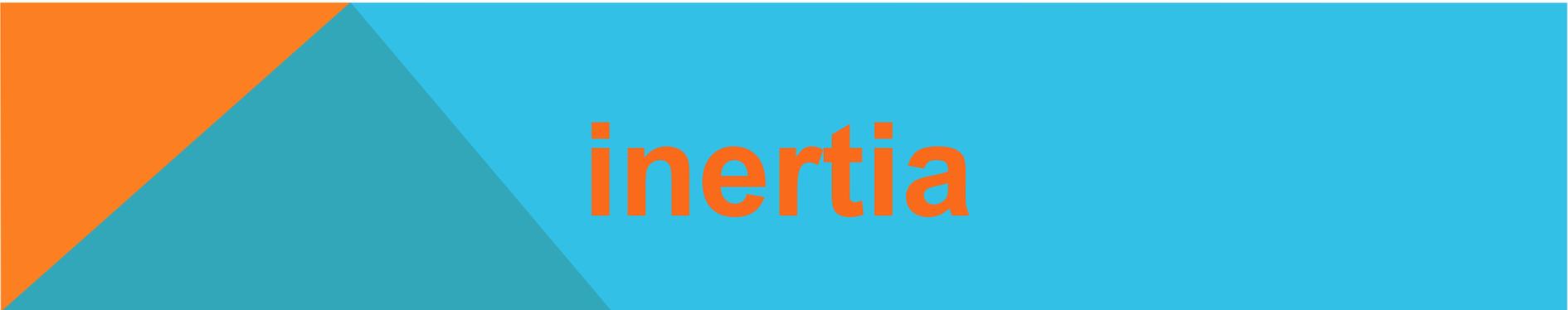
Owen and Daniel drive with their family to Austin, Texas to watch the Longhorns basketball team. If their family drives 120 miles and it takes them 2 hours to get there, what is the speed of their car?

**60 mi/hr**

**The tendency of an object to resist change in motion is known as \_\_\_\_\_ .**



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**inertia**

**While riding your bike, you exert a force on the pedal of your bike. The pedal exerts a force on your foot. This is an example of which of Newton's Laws?**

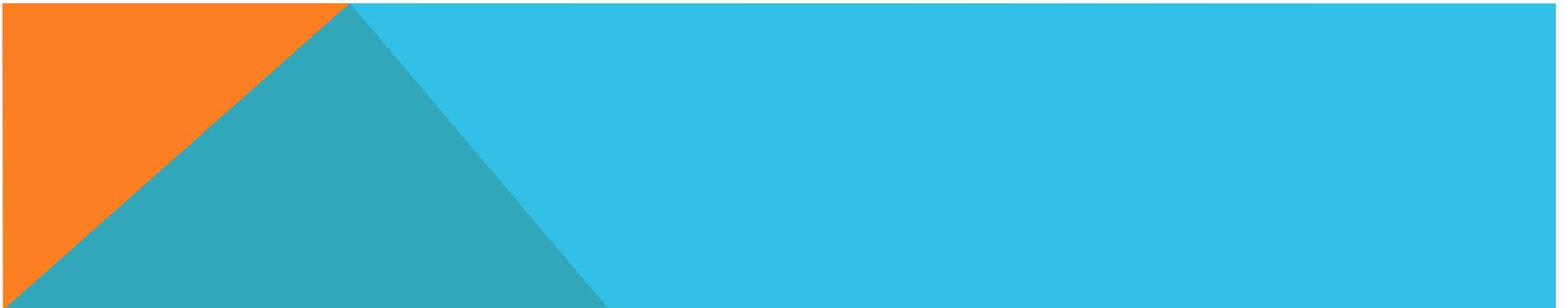


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**Newton's 3<sup>rd</sup> Law**

$$F = M \times A$$

**The formula above represents which of  
Newton's Laws?**



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**Newton's 2<sup>nd</sup> Law**

**When a tablecloth is pulled off a table without disturbing the dishes, this demonstrates that the dishes are showing which property?**



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**inertia**

**Since a baseball has less mass than a softball, it will travel faster when pitched. This is an example of which law?**

Small mass



Large Mass



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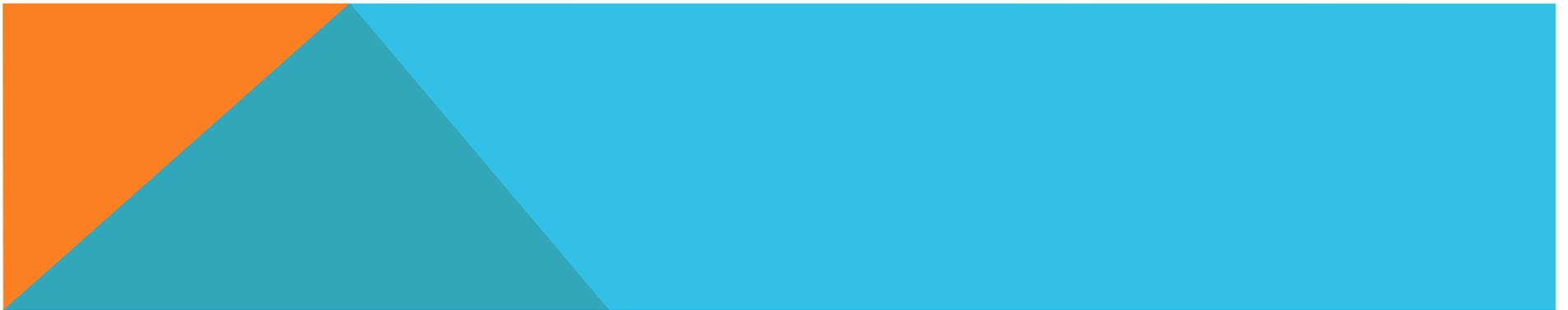
Small mass



Large Mass

**Newton's 2<sup>nd</sup> Law**

**Whenever an object exerts a force on another object, the second object exerts an equal and opposite force on the first. This represents which of Newton's Laws?**



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**Newton's 3<sup>rd</sup> Law**

**A person carries a box to a moving van. If he exerts 10N of force for a distance of 8 meters, how much work does he do?**

**Hint:  $W = F \times D$**

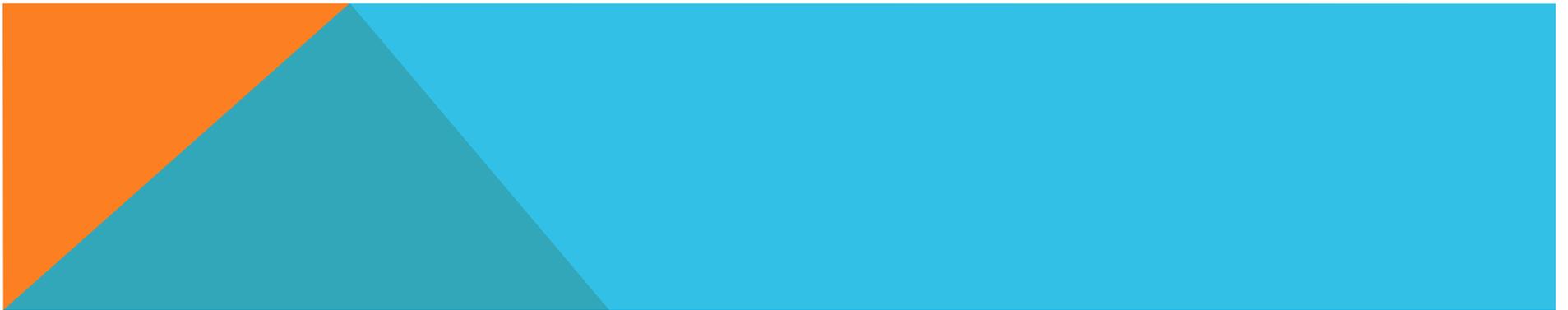
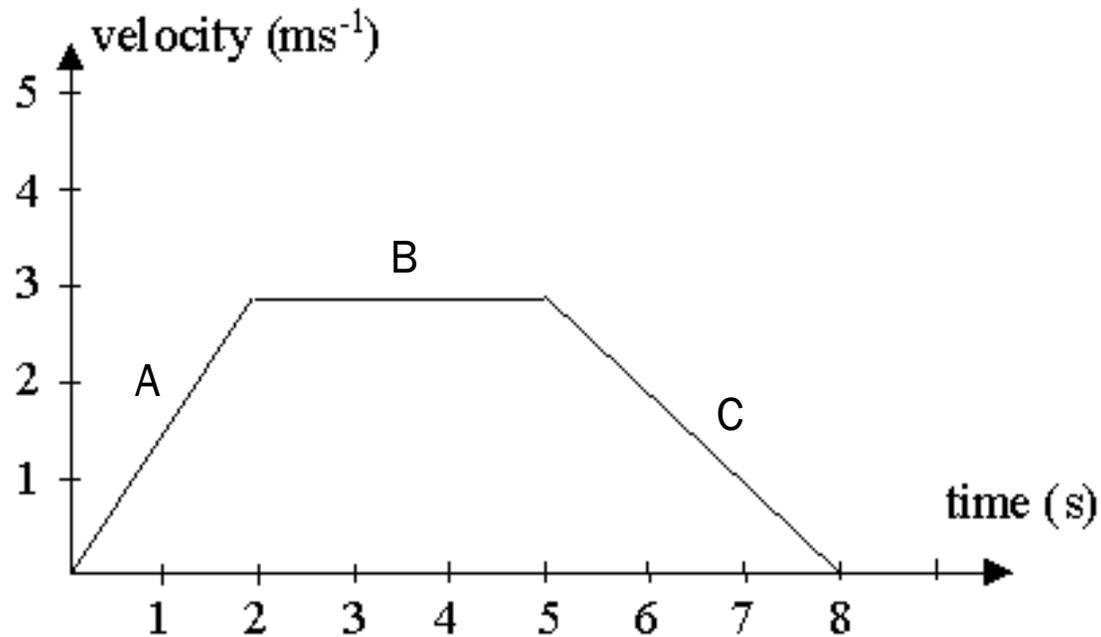


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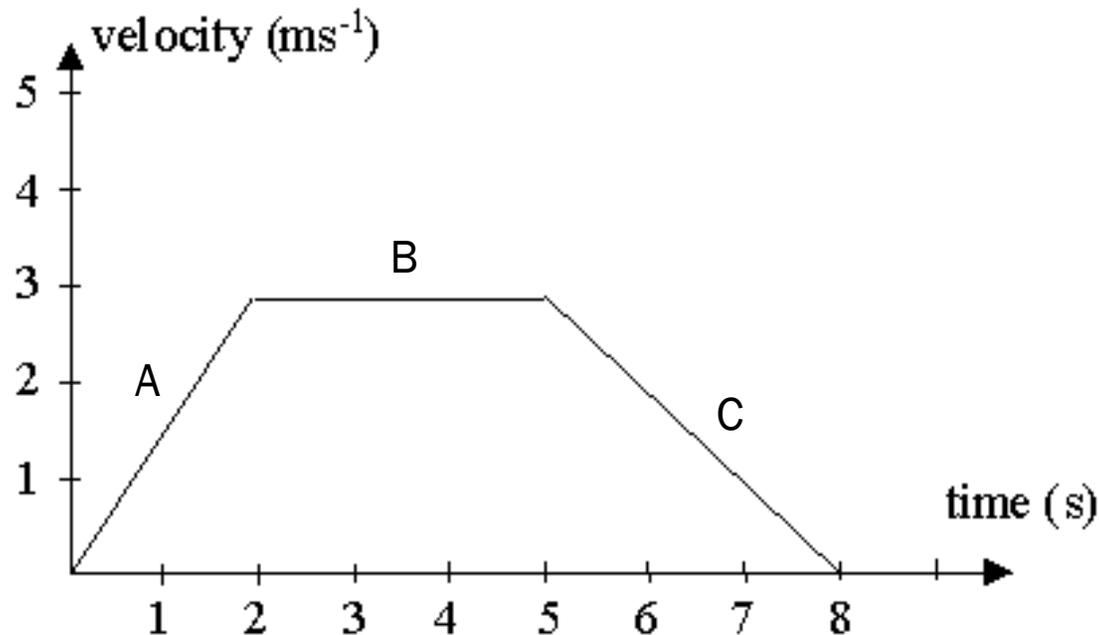
**Hint:  $W = F \times D$**

**80 joules**

**According to the graph below, what is happening at section A, B, C?**



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**A- positive acceleration**  
**B- constant speed**  
**C- negative acceleration**

**A rocket taking off pushes gas in one direction against the ground. The ground then pushes on the rocket in the opposite direction. This is an example of which law?**



**A rocket taking off pushes gas in one direction against the ground. The ground then pushes on the rocket in the opposite direction. This is an example of which law?**

**Newton's 3<sup>rd</sup> Law**

**How much force is needed to exert 100 joules of work on an object that moves 5 meters?**

**Hint:  $F = W/D$**

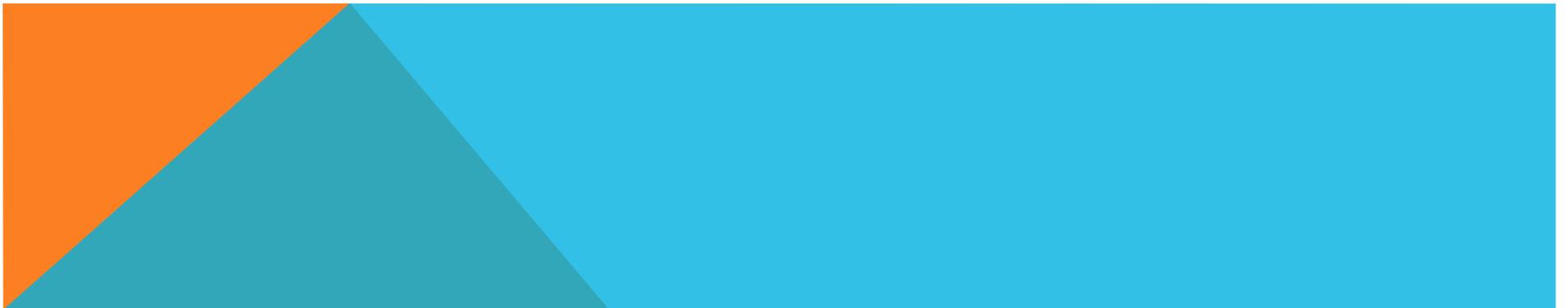
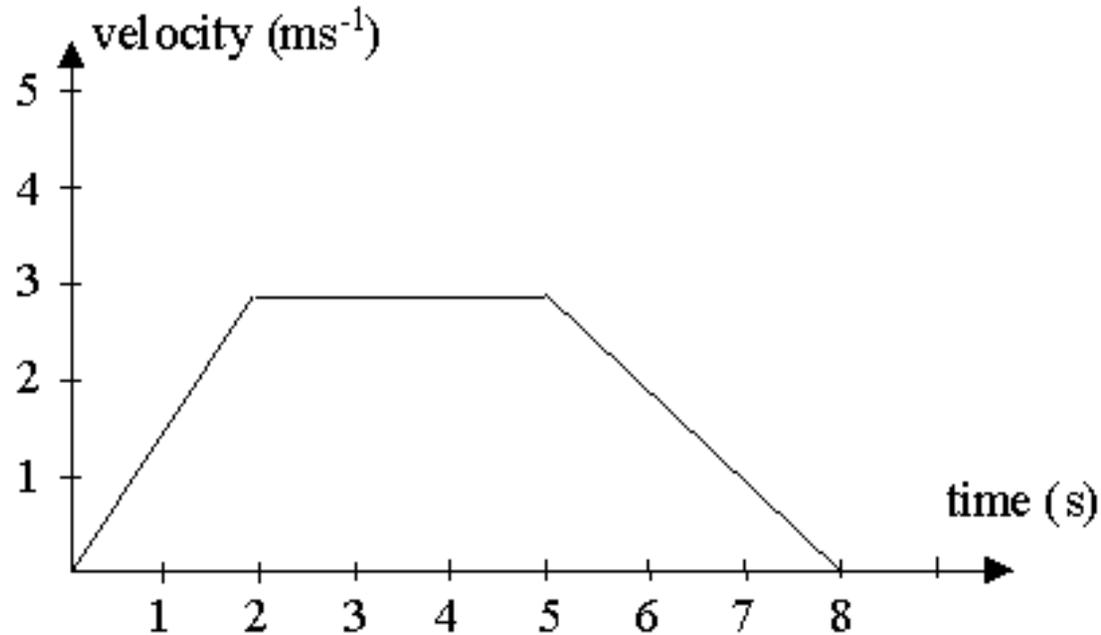


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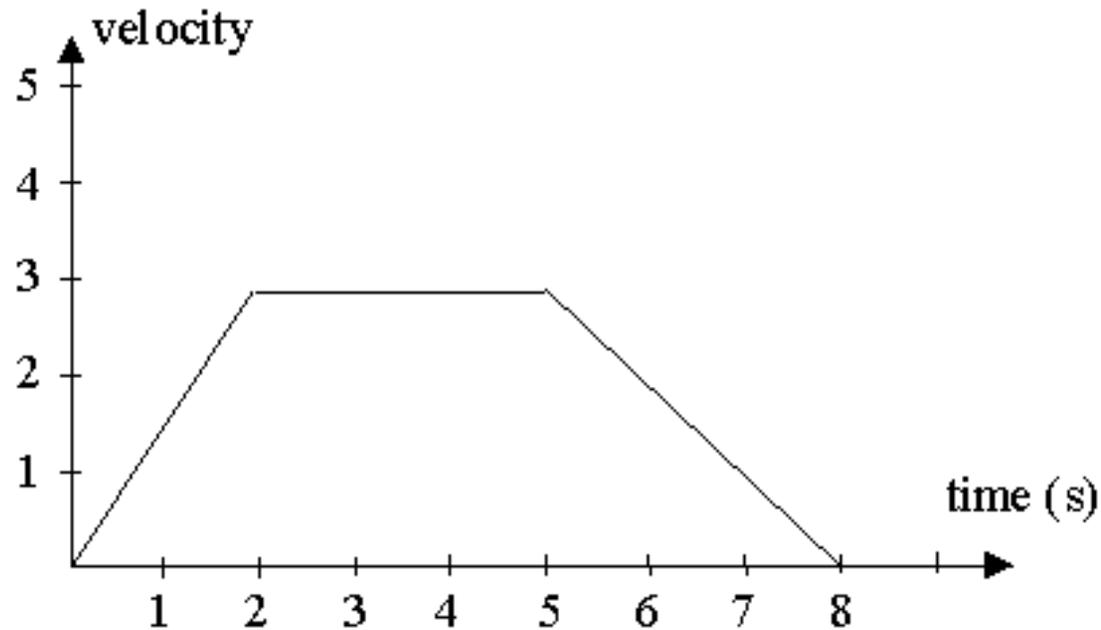
**Hint:  $F = W/D$**

**20 Newtons**

If this graph represents the speed of a car over 8 seconds, what is the (velocity) speed of the car at 3 seconds?



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**3 m/s**

**When a wagon travels down a ramp, and hits a brick its load of blocks in the back continues to move forward. This is due to which law?**



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**Newton's First Law**

**Which type of electromagnetic wave is used to cook your food?**



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**Microwave**

**When you ride your bike up a hill, your speed slows down. What is a decrease in speed called?**



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**Negative Acceleration**

**“For every action, there is an equal and opposite reaction.”**

**The above statement best describes which law?**



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**The above statement best describes which law?**

**Newton's 3<sup>rd</sup> Law**

**A jogger runs 2000m East in 500 seconds. What is his velocity?**

**Hint: Velocity is speed AND direction**



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**Hint: Velocity is speed AND direction**



**40 m/s East**

**“An object at rest remains at rest,  
and an object in motion remains in  
motion until acted on by an  
unbalanced force.”**

**The above statement best describes which  
law?**



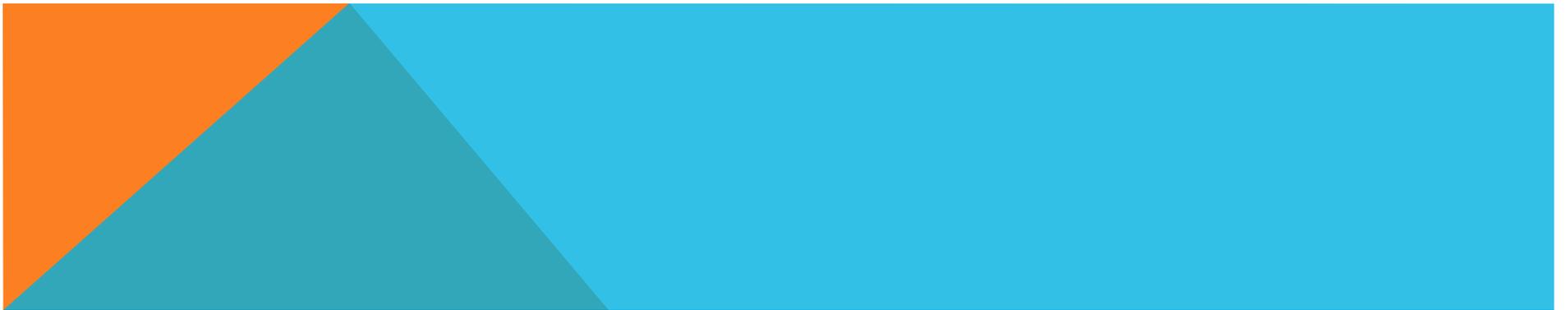
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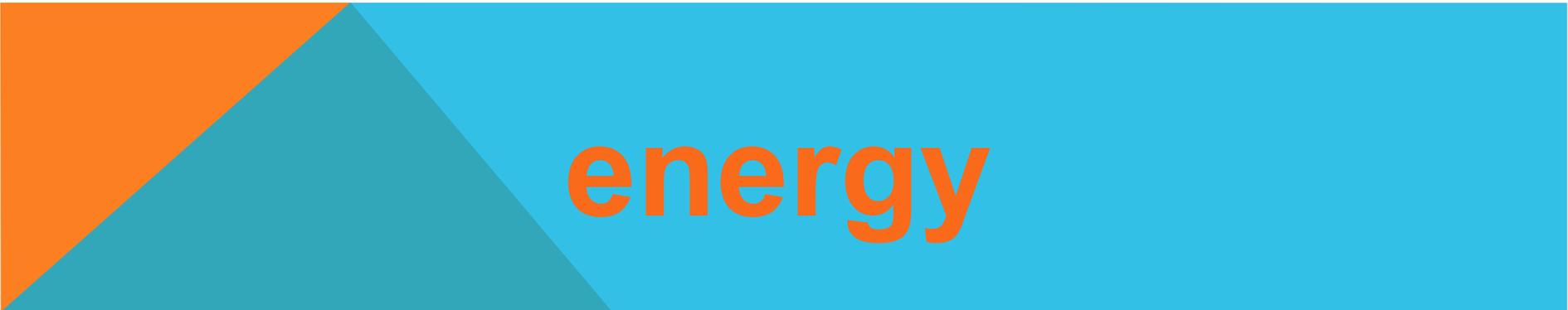


**Newton's 1<sup>st</sup> Law**

**Electromagnetic waves transmit  
\_\_\_\_\_ but not matter.**

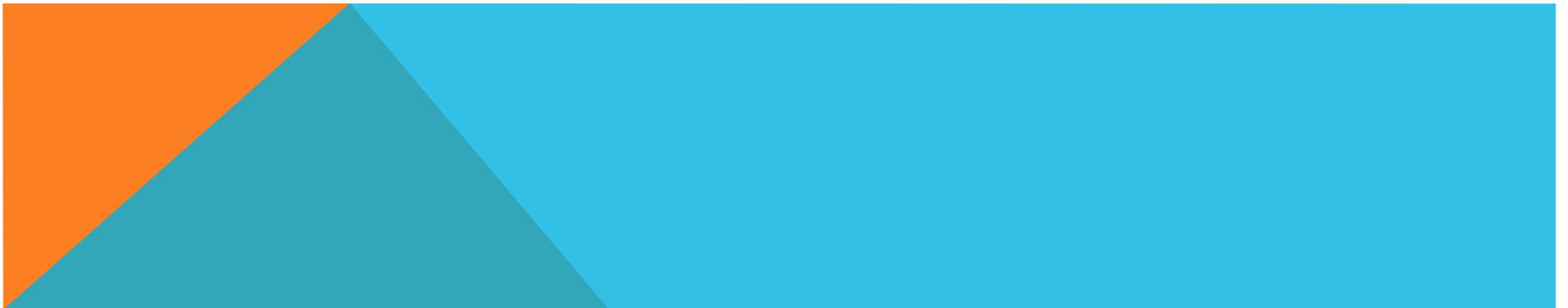
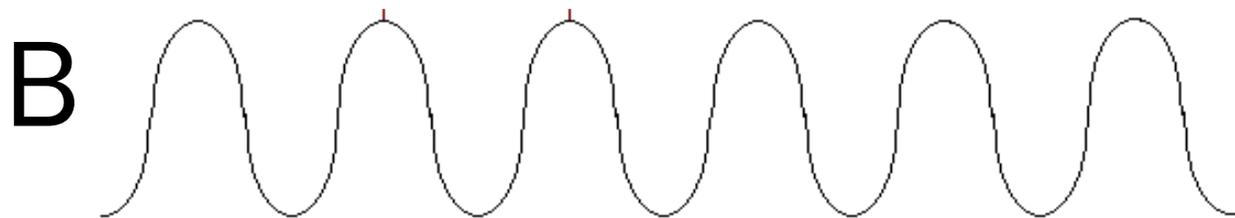
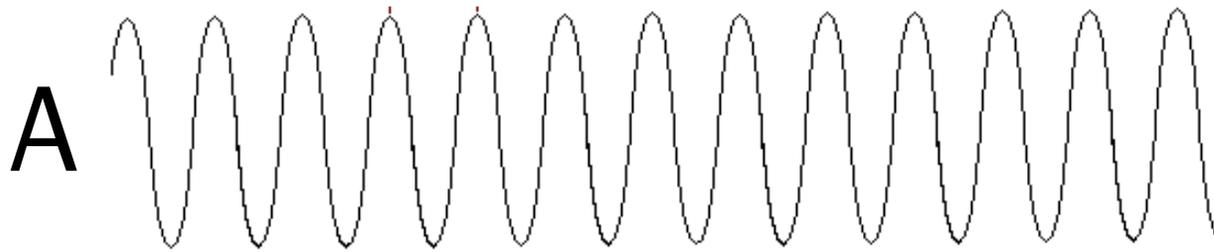


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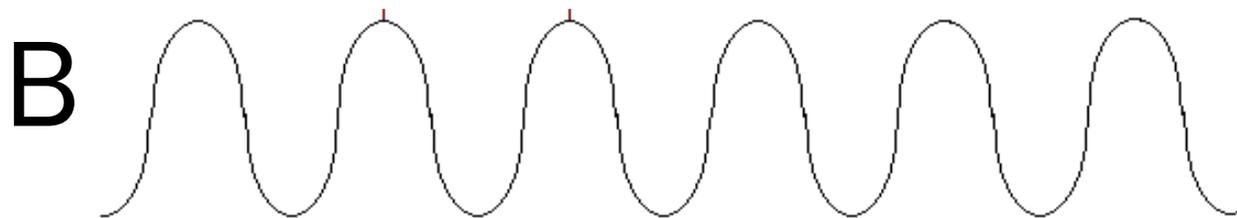
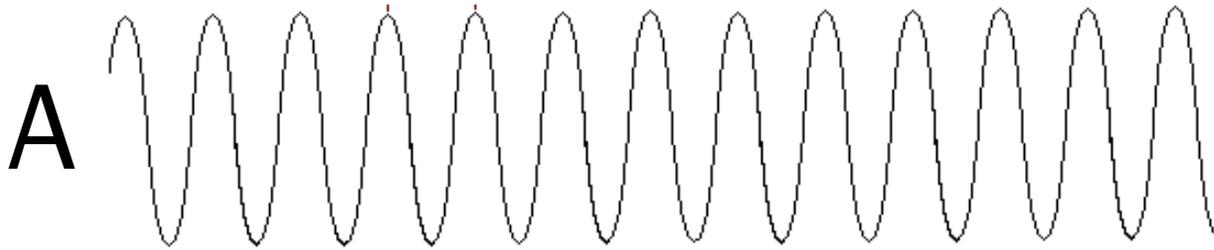


**energy**

**Which wave below has a shorter wavelength?**

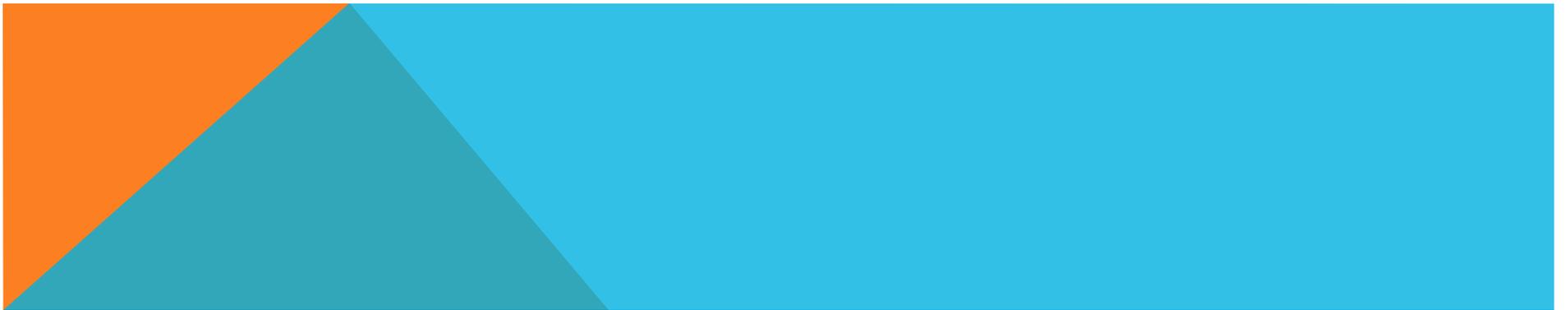


**Which wave below has a shorter wavelength?**



**A**

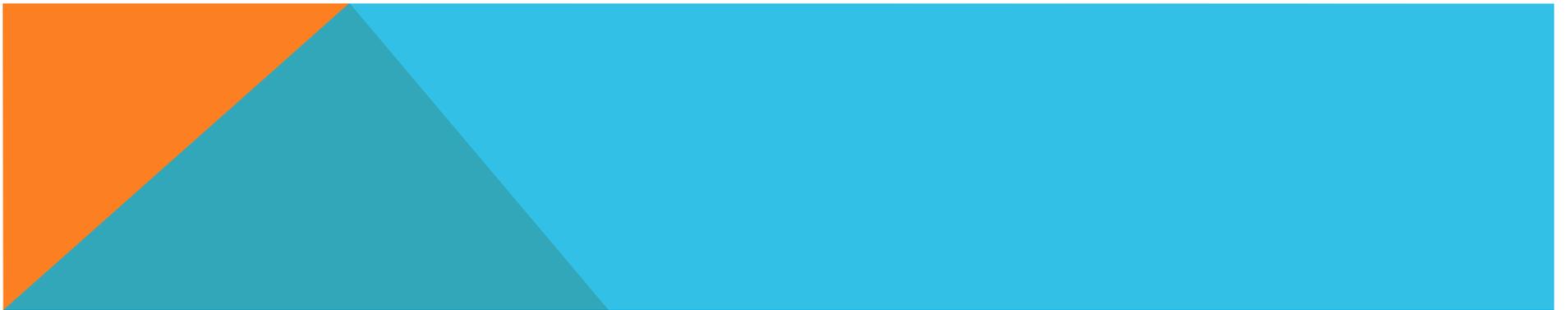
**How do electromagnetic  
waves help scientists  
study space?**



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**Finding elements that make up stars**

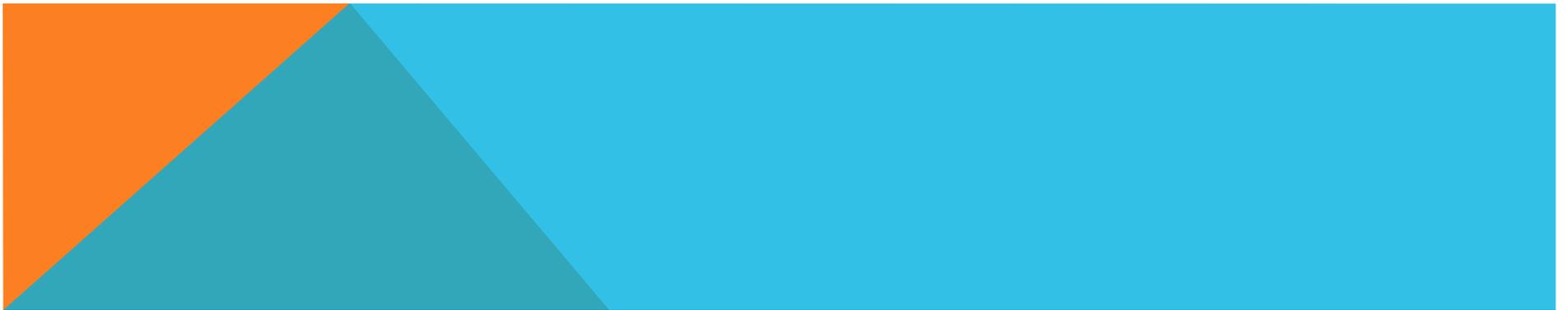
**When the notecard was pulled, the washer fell in the cup. This represents which of Newton's Laws?**



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**Newton's 1<sup>st</sup> Law**

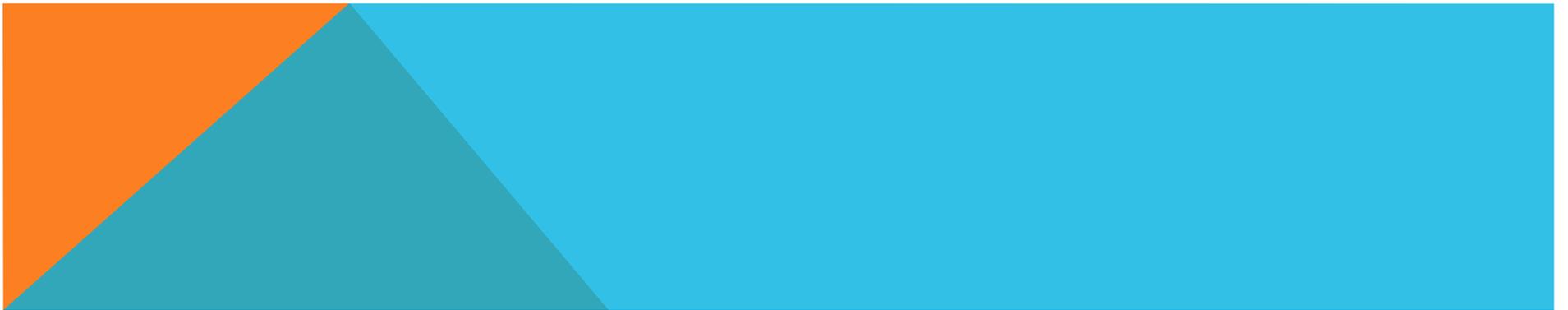
**A 15lb bowling ball will accelerate faster than a 9lb bowling ball. This is which of Newton's Laws?**



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**Newton's 2<sup>nd</sup> Law**

**Car slams on the breaks  
and soda flies out of the  
cup holder due to which of  
Newton's Laws?**



**Car slams on the breaks  
and soda flies out of the  
cup holder due to which of  
Newton's Laws?**

**Newton's 1<sup>st</sup> Law**

**Leaves still motionless in the yard until wind blows them away. This represents which of Newton's Laws?**



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**Newton's 1<sup>st</sup> Law**

**More force is needed to lift a box with mass of 100 g, than a box with mass of 10 g. This represents which of Newton's Laws?**



**More force is needed to lift a box with mass of 100 g, than a box with mass of 10 g. This represents which of Newton's Laws?**

**Newton's 2<sup>nd</sup> Law**