

# Ch 11 Study Guide (PS)

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Give an example of an unbalanced force. Be Specific

How do you change velocity? (There are 2 ways!!)

Is a parked car moving? Explain.

You walk 10 m N, 40 m S, 15 m N, 20 m N, and finally 5 m S. What is your displacement? What is your distance?

What is the SI unit for distance?

Convert...40 cm into inches, 3 inches into cm, 55 m into inches, 1000 inches into meters

What are the 4 fundamental forces?

A car drives with an average speed of 40 km/h. How long (h) does it take the car to travel 90000 meters?

Are the following speeds or velocities? 100 mph 45 km/h 36 m/s N 60 miles per hour

The label for speed in SI units is.....

Name the 2 different types of forces. Also, give 2 example for each.

A car drives with an average speed of 40 km/h. How long (s) does it take the car to travel 90000 meters?

What is the net force when you push with 40 N east on a box and your dad pushes with 50 N east on the same box?

What would be a reference point for the following items? (ALL are moving)

Car driving down a road

Person walking a dog

A desk sitting in a classroom

You walk 440 m N, 600 m S, 145 m N, 705 m S. What is your distance? What is your displacement?

You are looking at a bird on the ground. You close your eyes and when you open them, the bird has moved. Explain how you KNOW the bird has moved.

Can a child on a moving merry-go-round have a constant speed, velocity, both, or none?

Explain.

Give an example of 4 different forces.

A car drives 300 km in 8 hours. What is the car's average speed in km/h? m/s?

Give an example of a balanced force. Be Specific

A car drives with an average speed of 60 km/h. How far (km) does the car drive in 625 minutes? In (m)?

What does friction do?

What is the difference between average speed and instantaneous speed?

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Draw a distance-time graph using the following info.

Time (s)	Distance (m)
10	5
20	10
40	20
60	40
70	40
90	90
100	5

What is happening from 10 – 40 seconds?

What is happening from 90 – 100 seconds?

What is happening from 60 – 70 seconds?

A car accelerates from 30 m/s to 50 m/s in .25 hours. What is the cars acceleration ( $m/s^2$ )?

A dog is sitting down and then get up to chase a squirrel. While the dog is running he has a velocity of 12 m/s. What is the dogs acceleration is he runs for 1.24 minutes?

Name the 2 types of friction. Give examples of each.

A car accelerates with an acceleration of 0.6 m/s for 0.6 hours. What is the cars final speed if the car started from rest?

A rocket accelerates with an acceleration of 2.5 m/s for 0.002 hours. What is the rockets final speed if the car initial speed was 1 m/s?

What is the net for when you push with 40 N east on a box and your dad pushes with 50 N west on the same box?