

Force, Work, Speed, Space Review Sheet

Define the following vocabulary words:

Force –

Net Force –

Balanced Forces –

Unbalanced Forces –

Inertia –

Friction –

Contact Force –

Gravity –

Newton's 1st Law of Motion –

Newton's 2nd Law of Motion –

Newton's 3rd Law of Motion –

Work –

Speed –

Simple Machine –

Screw –

Lever –

Inclined Plane –

Pulley –

Wedge –

Wheel and Axel –

Newton (N)–

Joule (J)–

Meter (m)–

Meters per second (m/s) –

Meters per second² (m/s²) –

Kilogram (kg) –

Seconds –

Planet –

Moon –

Space probe –

EMU suit –

Rocket –

Satellite –

Natural satellite –

Man-Made satellite -

Space shuttle –

NASA –

Models –

Atmosphere –

Greenhouse Gasses –

Earth is the _____ planet from the sun?

Why was NASA established?

Give an everyday example of Newton's 1st Law of Motion:

Give an everyday example of Newton's 2nd Law of Motion:

Give an everyday example of Newton's 3rd Law of Motion:

What are models used for?

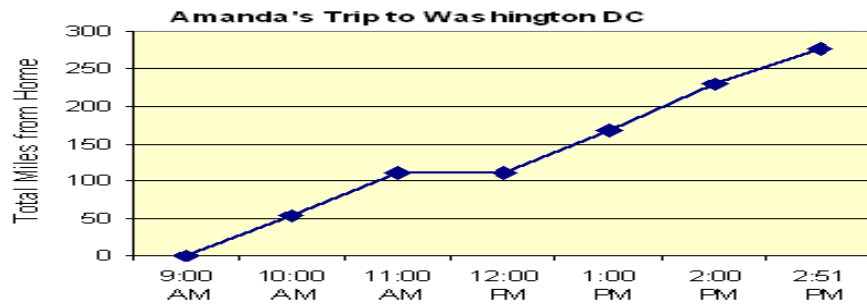
What 3 things to models represent: 1) _____ 2) _____ 3) _____

What is a limitation of using a model instead of using the real thing?

Write the **formula** for **speed**:

Write the **formula** for **work**:

Write the **formula** for **force**:



Use the Graph for the following question

Amanda traveled 300 miles today to go to Washington D.C. During what time period did she travel the slowest? Explain your answer in detail.

True or False: An object has to move a distance before work can be considered done on the object. Explain your answer in detail.

True or False: Simple machines change the amount of force or the direction of the force. Explain your answer in detail.

What is the biggest difference between moons and planets?

Fill in the percentages of gasses that make up Earth's atmosphere

Oxygen:

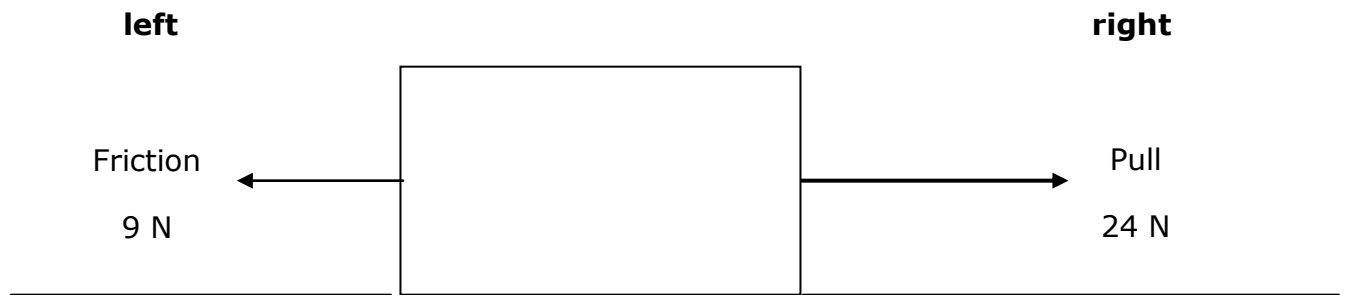
Nitrogen:

Greenhouse Gasses:

Which types of simple machines make a skateboard? Explain each one:

What simple machine increases the distance traveled but allows you to apply less force on the object being worked on?

A piano and an Xbox 360 are both dropped off of the top of Dowell Middle School at the same time. Which one will hit the ground first? Explain your answer in detail.



Use the diagram to answer the next question.

What is the net force of the object above AND what direction will it be moving?

**Before you answer the following questions, use the problem solving method, and show all work. Be sure to use the correct unit after your answer.*

A force of 12,000 N is applied to a stationary house. How much work is performed?

How much work is done by a squirrel that raises an acorn with 25 N of force a distance of 20 m?

How long will it take to drive a distance of 100 kilometers, if a car's average speed is 25 kilometers/hour?

A mom pushes a shopping cart with a force of 80 newtons (N) but the shopping cart does not move. How much force is the shopping cart applying on the mom?

A Dowell track star is running 6 kilometers. The track star's mass is 50 kg and it takes him 3 hours to run that distance. About how fast was the track star running?

Brian kicks a ball that accelerates at 16 m/s². The ball's mass is 1.5 kg. With what force did Brian kick the ball?