

Quarter 3 Physics Review

Category : PHYSICS BASICS

Points : 100

Q1: What is the simple definition of physics?

A: The study of how everything in the Universe works

Category : PHYSICS BASICS

Points : 200

Q2: What do you have to have if you want something to be in motion?

A: A force

Category : PHYSICS BASICS

Points : 300

Q3: What is the definition of force?

A: Any push or pull on an object

Category : PHYSICS BASICS

Points : 400

Q4: A force can make an object go faster, go slower, or change its

_____.

A: Direction

Category : PHYSICS BASICS

Points : 500

Q5: What is Acceleration?

A: A vector quantity that has to do with a **CHANGE** in speed and/or direction.

Category : ENERGY

Points : 100

Q6: What is difference between the definition of energy and mechanical energy?

A: Energy is the ability to do work and mechanical energy is the ability of an OBJECT to do work

Category : ENERGY

Points : 200

Q7: What do you call an action that causes displacement (things to move from one place to another)?

A: Work

Category : ENERGY

Points : 300

Q8: Everything in the Universe is made up of matter and energy. What scientific laws tell us that neither one can be created nor destroyed, but can only change forms?

A: Law of Conservation of Mass AND the Law of Conservation of Energy (The wording is the same for both laws with the exception of the words matter and energy)

Category : ENERGY

Points : 400

Q9: All the different types of energy can be put into two main categories...it is either moving or waiting to move. What are the names for the two categories and tell which is which.

A: Potential energy is stored energy (waiting to move) and Kinetic energy is energy in motion

Category : ENERGY

Points : 500

Q10: An object that is placed higher from the ground has greater potential energy than an object that is placed lower to the ground. Where an object is placed is important SO, potential energy is also known as the energy of _____.

A: Position or Location

Category : LAWS OF MOTION

Points : 100

Q11: Who observed motion and gravity and came up with 3 scientific laws about motion and one about gravity?

A: Sir Isaac Newton

Category : LAWS OF MOTION

Points : 200

Q12: The first law of motion states that an object at rest will stay at rest, and an object in motion will stay in motion, unless acted upon by what?

A: An unbalanced force

Category : LAWS OF MOTION

Points : 300

Q13: The second law of motion states that objects with more mass will need more _____ in order to move them.

A: Force

Category : LAWS OF MOTION

Points : 400

Q14: The third law of motion states that for every action there is an equal and _____ reaction.

A: Opposite

Category : LAWS OF MOTION

Points : 500

Q15: What is the word used to describe how objects are resistant to change ("objects just gonna be doin' what they be doin' and don't want to change")?

A: Inertia

Category : NON-CONTACT FORCES

Points : 100

Q16: What is a type of non-contact force that pulls things TOWARDS the center of the earth

A: Gravity

Category : NON-CONTACT FORCES

Points : 200

Q17: What is a type of non-contact force that attracts or repels objects without touching them?

A: Magnetism (know that like poles repel and opposite poles attract)

Category : NON-CONTACT FORCES

Points : 300

Q18: Is gravity a strong or a weak force?

A: Weak! (it is only as strong as distance and mass allows)

Category : NON-CONTACT FORCES

Points : 400

Q19: What is the place on an object where the weight is even on all sides?

A: Center of Gravity

Category : NON-CONTACT FORCES

Points : 500

Q20: Galileo dropped balls with different masses from the Leaning Tower of Pisa to prove what fact about gravity?

A: That it will pull objects at the same rate and the balls will hit the ground at the same time

Category : CONTACT FORCES

Points : 100

Q21: Name the type of force that works AGAINST MOTION, in the OPPOSITE direction

A: Friction

Category : CONTACT FORCES

Points : 200

Q22: Spring force is a type of contact force. What is the nature of a spring after it is stretched or compressed?

A: It returns to its natural shape or position

Category : CONTACT FORCES

Points : 300

Q23: Which type of contact force is a type of frictional force that is specific to water or air?

A: Drag force

Category : CONTACT FORCES

Points : 400

Q24: What is another name for an applied force when a person is the one applying the force?

A: Muscular Force

Category : CONTACT FORCES

Points : 500

Q25: In what type of shape do aircraft designers shape planes to make it easier for planes to travel through the air, reducing air resistance?

A: Aerodynamic shapes

Category : SIMPLE MACHINES

Points : 100

Q26: What is the definition of a machine?

A: Anything that allows work to be done using less force (which makes work easier)

Category : SIMPLE MACHINES

Points : 200

Q27: Name the six simple machines that are the foundation of all machinery.

A: Lever, Inclined Plane, Wheel and Axle, Wedge, Screw, and Pulley (be familiar with what each of these are and some examples of them)

Category : SIMPLE MACHINES

Points : 300

Q28: Name the parts of a lever and tell how many classes of levers there are.

A: There are 3 classes of levers made up of a stiff board or bar AND a fulcrum

Category : SIMPLE MACHINES

Points : 400

Q29: What do you call any combination of two or more simple machines that makes work even easier?

A: Compound Machine

Category : SIMPLE MACHINES

Points : 500

Q30: What do you call the measure of how much force is increased by using a tool or machine?

A: Mechanical Advantage

Category : FF QUESTION

Points : 500

QFF: The law of universal gravitation states that the strength of the gravitational force depends on both the mass of the objects and the _____ between them.

A: Distance