

CTYI Spring 2024 - Astronomy - Relativity Quiz

Cas

03 / 02 / 2024

Problem 1

What Famous Scientist came up with the theory of relativity?

1. Isaac Newton
2. Albert Einstein
3. Galileo Galilei
4. Stephen Hawking
5. Paul Dirac

Problem 2

What two principles make up the theory of special relativity?

1. Principle of Nuclear Forces and the Principle of Constant Speed of Light
2. Principle of Relativity and the Principle of mass
3. Principle of mass and the principle of nuclear forces
4. Principle of Relativity and the Principle of Constant Speed of Light
5. None of the Above

Problem 2

According to the Theory of Relativity, the speed of light in a vacuum is _____ for all observers?

1. Different
2. Dependent on the source of light
3. Dependent on the observer
4. The same
5. None of the Above

Problem 3

True or False: The Theory of Relativity was used in the creation of the atomic bomb.

1. True
2. False

Problem 4

In the equation $E = mc^2$, what does E stand for?

1. Energy
2. Entropy
3. Electricity
4. Electromagnetism
5. None of the Above

Problem 5

In the equation $E = mc^2$, what does m stand for?

1. Movement
2. Mana
3. Mass
4. Momentum
5. None of the Above

Problem 6

In the equation $E = mc^2$, what does c stand for?

1. The speed of light
2. The speed of sound
3. The speed of electricity
4. The speed of magnetism
5. None of the Above

Problem 7

The faster an object is moving in relation to an observer, the _____ it will appear to an observer

1. Longer
2. Shorter
3. Slower
4. Faster
5. the same

Problem 8

True or False: The faster a spaceship is flying, the shorter it will appear to people *on board the ship*.

1. True
2. False

Problem 9

If the mass of an object changes, what will also change?

1. The speed of light
2. The energy of the object
3. The length of the object
4. The time of the object
5. None of the Above