Name: Date: Score: / 8

Gravity, Mass and Weight: Learn and Practice

Why you would weigh less on the Moon

Read each question. Circle the best answer.

💡 Gravity, Mass and Weight

- Gravity is a pull between all objects that have mass.
- Mass is the amount of matter in an object, and it is the same everywhere.
- Weight is the force of gravity on that mass, so it changes on other worlds.
- a student on the Moon: same mass, about one sixth the weight

1 🍎 Which way does Earth's gravity pull objects?

A. Only sideways B. Only toward the North Pole
C. Away from Earth D. Toward Earth's center

2 Which unit measures weight as a force?

A. Kilograms B. Degrees C. Newtons
D. Litres

3 🧑‍🚀 An astronaut travels to the Moon. What happens to their mass?

A. It doubles B. It becomes zero
C. It becomes one sixth D. It stays the same

4 Which unit measures mass?

A. Metres B. Seconds C. Newtons
D. Kilograms

5 Why would you weigh less on the Moon?

A. The Moon has weaker gravity
B. The Moon is near the Sun
C. You lose matter in space D. There is no air

6 What is weight?

A. The size of an object B. The amount of matter
C. The speed of an object
D. The force of gravity on an object

7 What is mass?

A. The pull of gravity B. How big it looks
C. How fast it falls
D. The amount of matter in an object

8 Which two factors affect the strength of gravity between objects?

A. Mass and distance B. Color and shape
C. Size and smell D. Temperature and speed

✏️ Explain it! Write two facts you learned about gravity, mass and weight.

ANSWER KEY

Gravity, Mass and Weight: Learn and Practice (answers)

Why you would weigh less on the Moon

Read each question. Circle the best answer.

1 🍎 Which way does Earth's gravity pull objects?

A. Only sideways B. Only toward the North Pole
C. Away from Earth **D. Toward Earth's center**

Gravity pulls everything toward the center of Earth, which we call down.

2 Which unit measures weight as a force?

A. Kilograms B. Degrees **C. Newtons**
D. Litres

Weight is a force, and forces are measured in newtons, named after Isaac Newton.

3 🧑‍🚀 An astronaut travels to the Moon. What happens to their mass?

A. It doubles B. It becomes zero
C. It becomes one sixth **D. It stays the same**

The astronaut is still made of the same matter, so mass does not change.

4 Which unit measures mass?

A. Metres B. Seconds C. Newtons
D. Kilograms

Mass is measured in grams and kilograms.

5 Why would you weigh less on the Moon?

A. The Moon has weaker gravity
B. The Moon is near the Sun
C. You lose matter in space D. There is no air

The Moon has less mass than Earth, so its gravity pulls on you less.

6 What is weight?

A. The size of an object B. The amount of matter
C. The speed of an object
D. The force of gravity on an object

Weight is how hard gravity pulls on an object's mass.

7 What is mass?

A. The pull of gravity B. How big it looks
C. How fast it falls
D. The amount of matter in an object

Mass measures how much matter, or stuff, an object contains.

8 Which two factors affect the strength of gravity between objects?

A. Mass and distance B. Color and shape
C. Size and smell D. Temperature and speed

More mass makes gravity stronger, and more distance makes it weaker.