

## MASS-WEIGHT-SET-3-MS

- 1 A person steps onto a bathroom scales.

The bathroom scales records both mass and weight.

Which row shows the readings on the scales?

	mass	wei
<b>A</b>	60 N	60 kg
<b>B</b>	60 kg	600 N
<b>C</b>	600 kg	60 N
<b>D</b>	600 N	6 kg

- 2 The mass of a full bottle of cooking oil is 1.30 kg.

When exactly half of the oil has been used, the mass of the bottle plus the remaining oil is 0.90 kg.

What is the mass of the bottle?

- A** 0.40 kg                      **B** 0.50 kg                      **C** 0.65 kg                      **D** 0.80 kg

- 3 What is the gravitational force that the Earth exerts on an object?

- A** the density of the object
- B** the mass of the object
- C** the volume of the object
- D** the weight of the object

- 4 A newton is a unit of force.

Which quantity is measured in newtons?

- A** acceleration
- B** density
- C** mass
- D** weight

5 The table shows the weight of a 10 kg mass on each of five planets.

planet	weight of a 10 kg mass/N
Mercury	40
Venus	90
Earth	100
Mars	40
Jupiter	250

On which planets would an astronaut have a smaller weight than on Earth?

- A Mercury, Mars and Jupiter
- B Mercury, Venus and Mars
- C Mercury, Venus and Jupiter
- D Venus, Mars and Jupiter

6 What is the meaning of the *weight* of an object?

- A the density of the material from which it is made
- B the force exerted on it by gravity
- C the mass of the matter it contains
- D the pressure it exerts on the floor

7 A cup contains hot liquid.

Some of the liquid evaporates as it cools.

What happens to the mass and to the weight of the liquid in the cup as it cools?

	mass	weight
A	decreases	decreases
B	decreases	stays the same
C	stays the same	decreases
D	stays the same	stays the same

8 Which list contains the name of a force?

- A acceleration, charge, temperature
- B density, resistance, speed
- C distance, frequency, mass
- D energy, power, weight

9 The mass of an astronaut is 70 kg on the Moon.

What is the mass of the astronaut on the Earth?

- A 7 kg                      B 70 kg                      C 80 kg                      D 700 kg

10 The mass of an object is measured on Earth. The mass is 5.0 kg.

The object is taken to the Moon. The mass of the object is measured on the Moon.

What is the mass of the object on the Moon?

- A 0 kg
- B more than 0 kg, but less than 5.0 kg
- C 5.0 kg
- D more than 5.0 kg

11 Which statement about mass or weight is correct?

- A Mass is a force.
- B Mass is measured in newtons.
- C Weight is a force.
- D Weight is measured in kilograms.