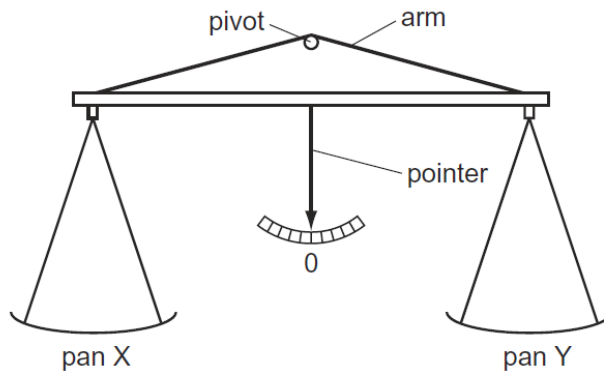


MASS-WEIGHT-SET-1

1	<p>Which statement is correct?</p> <p>A Mass is a force, measured in kilograms.</p> <p>B Mass is a force, measured in newtons.</p> <p>C Weight is a force, measured in kilograms.</p> <p>D Weight is a force, measured in newtons.</p>
2	<p>Which statement about the mass of a falling object is correct?</p> <p>A It decreases as the object falls.</p> <p>B It is equal to the weight of the object.</p> <p>C It is measured in newtons.</p> <p>D It stays the same as the object falls.</p>
3	<p>Which statement is correct?</p> <p>A The mass of a bottle of water at the North Pole is different from its mass at the Equator.</p> <p>B The mass of a bottle of water is measured in newtons.</p> <p>C The weight of a bottle of water and its mass are the same thing.</p> <p>D The weight of a bottle of water is one of the forces acting on it.</p>

4

A simple balance has two pans suspended from the ends of arms of equal length. When it is balanced, the pointer is at 0.



Four masses (in total) are placed on the pans, with one or more on pan X and the rest on pan Y.

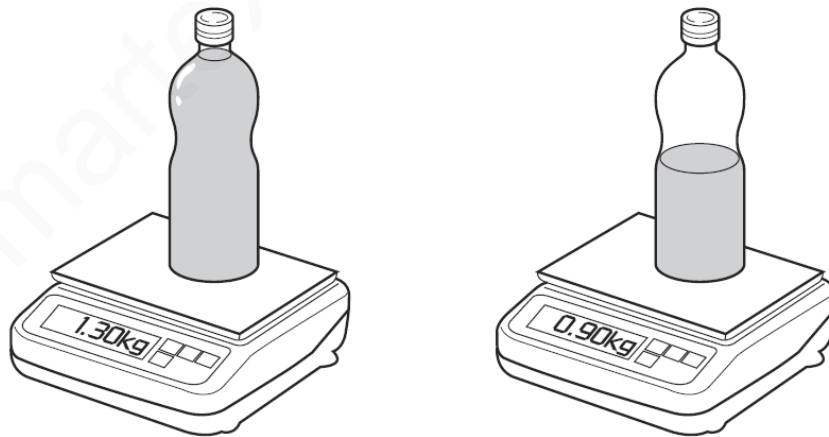
Which combination of masses can be used to balance the pans?

- A 1g, 1g, 5g, 10g
- B 1g, 2g, 2g, 5g
- C 2g, 5g, 5g, 10g
- D 2g, 5g, 10g, 10g

5

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 empty bottle?

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

6

The force of gravity acting on an astronaut in an orbiting spacecraft is less than when she is on the Earth's surface.

Compared with being on the Earth's surface, how do her mass and weight change when she goes into orbit?

	mass in orbit	weight in orbit
A	decreases	decreases
B	decreases	unchanged
C	unchanged	decreases
D	unchanged	unchanged

7

Which statement about the masses and weights of objects on the Earth is correct?

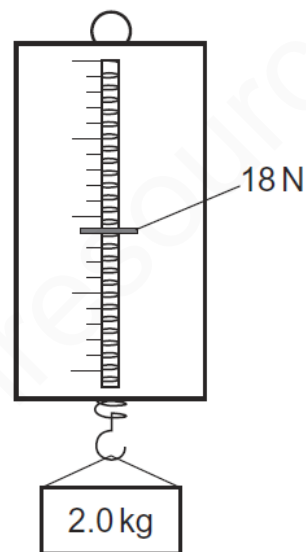
- A** A balance can only be used to compare weights, not masses.
- B** Heavy objects always have more mass than light ones.
- C** Large objects always have more mass than small ones.
- D** Mass is a force but weight is not.

8

The table shows the weight in newtons of a 10 kg mass on each of four planets.

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

The diagram shows a force meter (spring balance) being used.



On which planet is the force meter (spring balance) being used?

- A** Earth
- B** Jupiter
- C** Mercury
- D** Venus

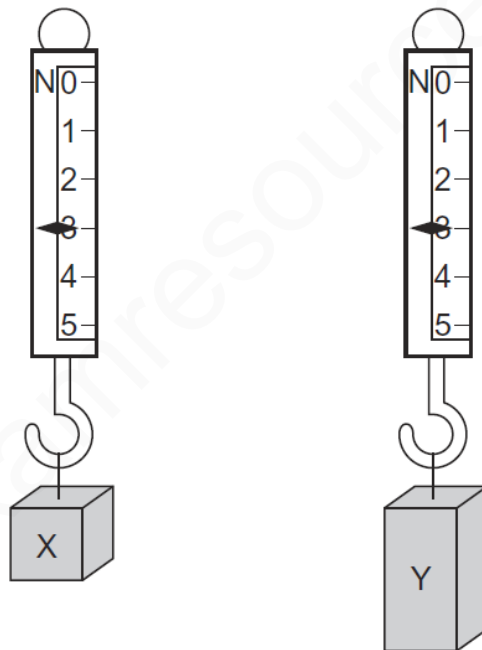
9

Which statement about the masses and weights of objects on the Earth is correct?

- A** A balance can only be used to compare weights, not masses.
- B** Heavy objects always have more mass than light ones.
- C** Large objects always have more mass than small ones.
- D** Mass is a force but weight is not.

10

Two blocks of metal X and Y hang from spring balances as shown in the diagram.

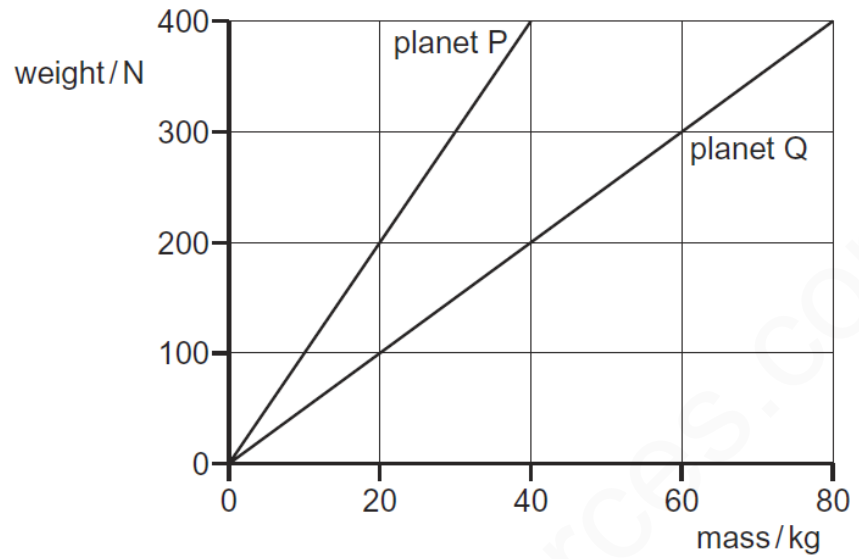


What does the diagram show about X and Y?

- A** They have the same mass and the same volume but different weights.
- B** They have the same mass and the same weight but different volumes.
- C** They have the same mass, the same volume and the same weight.
- D** They have the same weight and the same volume but different masses.

11

The graph shows how weight varies with mass on planet P and on planet Q.



An object weighs 400 N on planet P. The object is taken to planet Q.

Which row is correct?

	mass of object on planet Q/kg	weight of object on planet Q/N
A	40	200
B	40	400
C	80	200
D	80	400