

Chiniot Islamia Public School First Quartely Test
1st Quarterly Test

OI physics P1 - OI Physics P1

Total Marks: 100

Name: _____

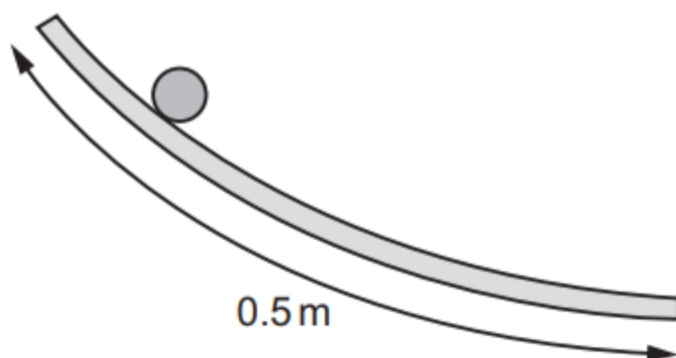
Section: _____

Q1 .

1. A spacecraft carries a probe to Mars where the gravitational field strength is 3.7 N/kg . The weight of the probe on Mars is 370 N . The gravitational field strength on Earth is 9.8 N/kg . What are the mass and the weight of the probe on Earth?

	mass / kg	weight / N
A	100	370
B	100	980
C	370	98
D	370	3700

2. In an experiment, a ball is rolled down a curved track that is about half a metre long.



to measure the length accurately?

Which measuring device is used

3. An object weighs 40 N on Earth, where the gravitational field strength is 10 N/ kg. The object is taken to a planet where the gravitational field strength is 4.0N/ kg.

	mass of object on the planet /kg	weight of object on the planet /N
A	4.0	1.0
B	4.0	16
C	400	100
D	400	1600

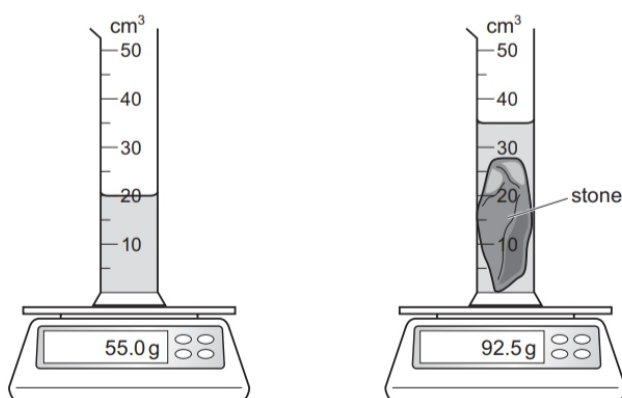
Which row is correct?

4. A length of copper wire is labelled: length 0.50 m and diameter 0.50 mm. Which instruments are most suitable to measure accurately the length and the diameter of

	length	diameter
A	metre rule	metre rule
B	metre rule	micrometer
C	calipers	metre rule
D	calipers	micrometer

the wire?

5. A measuring cylinder containing water is placed on a balance. A stone is placed into the water. The diagram shows the readings on the balance and on the measuring



cylinder.
stone?

What is the density of the

6. An unstretched spring of length 15.0 cm stretches by 4.0 cm when a mass of weight 6.0 N is suspended from it. The spring does not exceed the limit of proportionality. What is the total length of the spring when the weight of the suspended mass is 3.0N? A 2.0 cm B 7.5 cm C 9.5 cm D 17.0 cm
7. Which quantity is a vector?

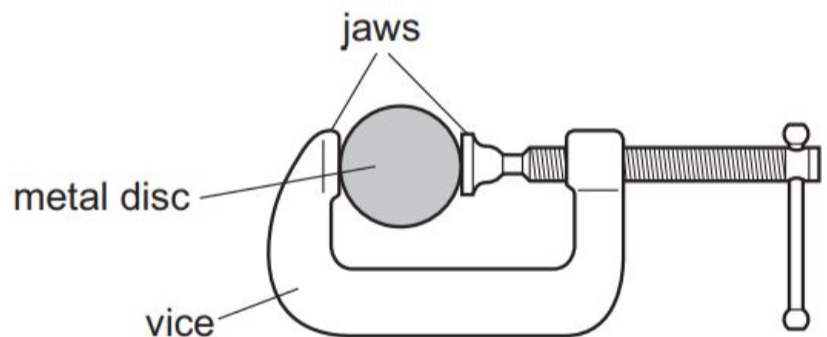
Q2 .

1. A man walks along a path from X to Y. The diagram shows the path from above.



The man measures the distance he walks and the time taken. Which quantity can be calculated using this data only?

2. A metal disc is squeezed in the jaws of a vice.

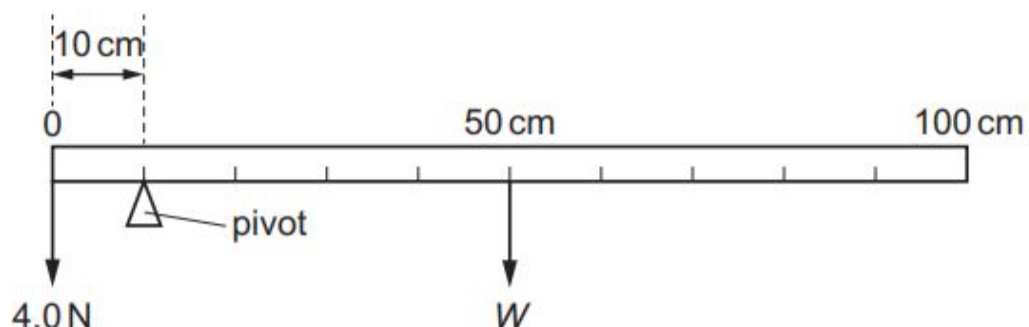


Which property of the metal disc is unchanged when it is squeezed?

- A** mass
- B** radius
- C** distance between its atoms
- D** forces between its atoms

3.

A uniform metre rule is balanced by a 4.0 N weight as shown.



What is the weight W of the metre rule?

- A** 1.0 N **B** 4.0 N **C** 16 N **D** 40 N

4.

A stone falls at terminal velocity in air.

What is equal to the change in gravitational potential energy of the stone?

- A** the change in kinetic energy
- B** the change in temperature of the stone
- C** the friction between the stone and the air
- D** the thermal energy produced

5. A student determines the density of a liquid. Which equipment does the student use?

- ★ (a) a balance and a ruler
- ★ (b) a balance and a measuring cylinder
- ★ (c) a beaker and a measuring cylinder
- ★ (d) a ruler and a beaker