

O Level Pure Physics MCQs

Physical Quantities, Units and Measurements Test 2.0

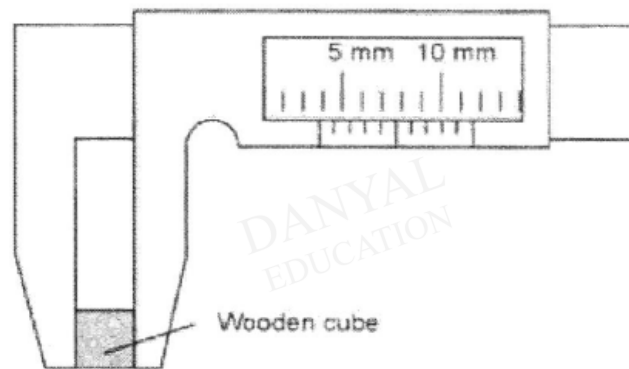
Q1

Which has two vector quantities?

- A acceleration and weight
- B density and kinetic energy
- C force and power
- D pressure and volume

Q2

The diagram shows a metal cube being measured by a Vernier caliper.

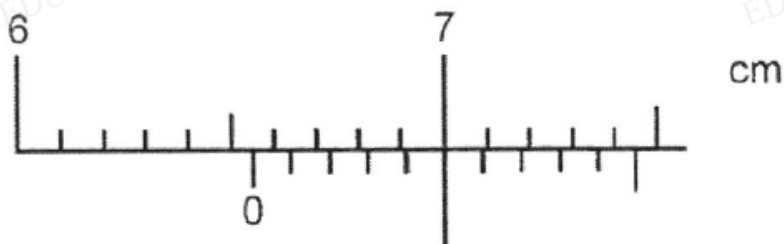


What is the length of the cube?

- A 1.5 mm
- B 3.8 mm
- C 4.4 mm
- D 34.8 mm

Q3

The diagram shows part of a vernier calipers.



What is the reading shown on the vernier calipers?

- A 6.50 cm
- B 6.55 cm
- C 7.00 cm
- D 7.45 cm

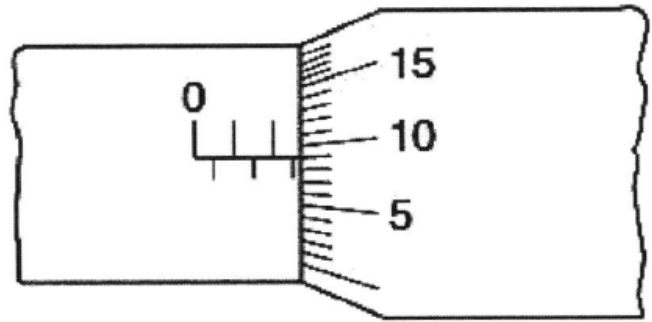
Q4

A micrometer screw gauge is used to measure the diameter of a wire.

The scale of the micrometer screw gauge is shown on the right.

What is the diameter of the wire?

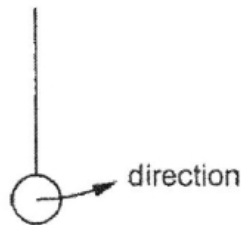
- A 2.56 mm
- B 2.59 mm
- C 5.06 mm
- D 5.09 mm



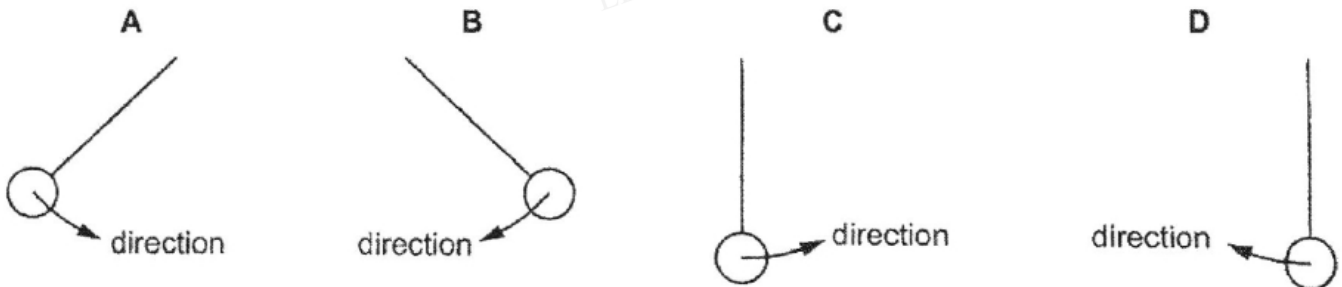
Q5

A simple pendulum has a period of 2.0 s.

A stopwatch is started when the pendulum is vertical and moving to the right, as shown below.



Which diagram below shows the position and the direction of the pendulum 3.0 s later?



Q6

1. Fig. 1.1 shows the zero error of a pair of Vernier calipers. Fig. 1.2 shows the same apparatus being used to measure the diameter of a metal disc.

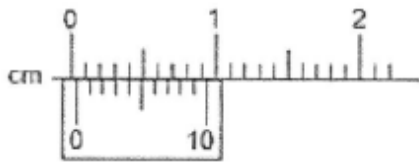


Fig 1.1

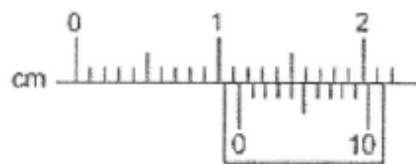


Fig 1.2

What is the diameter of the metal disc?

- A 1.00 cm
- B 1.10 cm
- C 1.18 cm
- D 1.20 cm

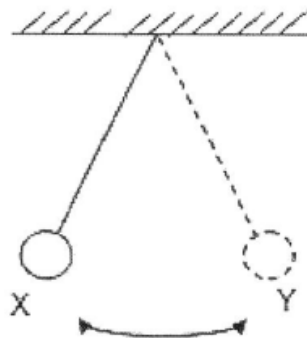
Q7

2. Which one of the following is **correct**?

- A The length of a field is about 1×10^2 m.
- B The diameter of an atom is about 1×10^{-5} m.
- C The diameter of the Earth is about 1×10^7 m.
- D The thickness of a human's hair is about 1×10^{-3} m.

Q8

3. The bob of a simple pendulum is swinging between points X and Y.

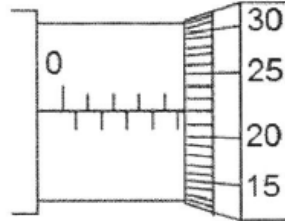
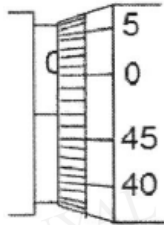


It swings from X to Y and back to X again ten times in 8.65 s.
What is the period of the pendulum?

- A 0.43 s
- B 0.87 s
- C 1.70 s
- D 4.30 s

Q9

A micrometer screw gauge is used to measure the thickness of a uniform rod. The figure below shows the reading on the micrometer screw gauge when it is closed before measurement is taken and the reading when it is taken with the rod.



What is the cross-sectional area of the rod?

- A 14.7 mm² B 14.9 mm² C 17.3 mm² D 17.7 mm²

Q10

Which of the following physical quantities consist only of vectors?

- A acceleration, force, volume B acceleration, force, velocity
C acceleration, mass, velocity D mass, time, velocity

Answers

Physical Quantities, Units and Measurements Test 2.0

Q1 A

Q2 B

Q3 B

Q4 B

Q5 D

Q6 B

Q7 A

Q8 B

Q9 D

Q10 B

DANYAL
EDUCATION

DANYAL
EDUCATION

DANYAL
EDUCATION

DANYAL
EDUCATION

DANYAL
EDUCATION