

Physical Quantities, Units and Measurement – 2023 June O Level 5054

1. June/2023/Paper_ 5054/11/No.1

A student wishes to measure directly the circumference of a football.

What is the most suitable instrument to use?

- A a clock only
- B a measuring tape only
- C a micrometer only
- D a ruler only

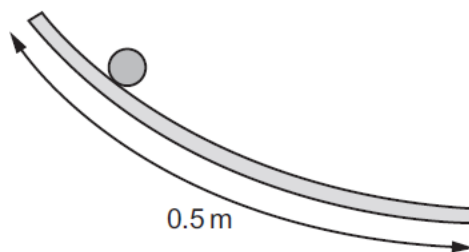
2. June/2023/Paper_ 5054/11/No.2

Which equation contains two vector quantities?

- A $\text{acceleration} = \frac{\text{change in velocity}}{\text{time taken}}$
- B $\text{average speed} = \frac{\text{distance travelled}}{\text{time taken}}$
- C $\text{density} = \frac{\text{mass}}{\text{volume}}$
- D $\text{volume} = \text{length} \times \text{width} \times \text{height}$

3. June/2023/Paper_5054/12/No.1

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



Which measuring device is used to measure the length accurately?

- A metre rule
- B micrometer
- C stop-watch
- D tape measure

4. June/2023/Paper_5054/12/No.2

Which row describes acceleration, displacement, distance and speed?

	acceleration	displacement	distance	speed
A	scalar	scalar	vector	scalar
B	scalar	vector	scalar	vector
C	vector	scalar	vector	vector
D	vector	vector	scalar	scalar