

- 5 The density of the material of a coil of thin wire is to be found.

Which set of instruments could be used to do this most accurately?

- A** metre rule, protractor, spring balance
- B** micrometer, metre rule, top-pan balance
- C** stopwatch, newton-meter, vernier calipers
- D** tape measure, vernier calipers, lever balance
- 6 A cylindrical tube rolling down a slope of inclination θ moves a distance L in time T . The equation relating these quantities is

$$L \left(3 + \frac{a^2}{P} \right) = QT^2 \sin \theta$$

where a is the internal radius of the tube and P and Q are constants.

Which row gives the correct units for P and for Q ?

	P	Q
A	m^2	$\text{m}^2 \text{s}^{-2}$
B	m^2	m s^{-2}
C	m^2	$\text{m}^3 \text{s}^{-2}$
D	m^3	m s^{-2}