

1 Which unit is **not** an SI base unit?

- A** A                      **B** kg                      **C** C                      **D** s

2 What is the best estimate of the number of atoms in a piece of metal of volume  $50 \text{ cm}^3$ ?

- A**  $5 \times 10^{15}$               **B**  $5 \times 10^{25}$               **C**  $5 \times 10^{29}$               **D**  $5 \times 10^{31}$

3 A copper pipe has a true diameter of 42.03 mm.

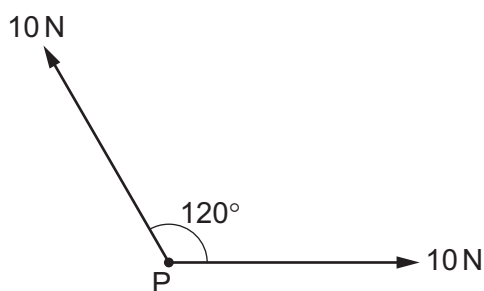
A builder measures the diameter of the pipe five times using digital calipers. The measurements are shown.

diameter / mm
48.01
47.99
48.01
48.00
47.99

What describes the builder's measurements?

- A** accurate and precise  
**B** accurate but not precise  
**C** not precise and not accurate  
**D** precise but not accurate

4 Two forces, each of 10 N, act at a point P, as shown. The angle between the directions of the forces is  $120^\circ$ .



What is the magnitude of the resultant force?

- A** 5 N                      **B** 10 N                      **C** 17 N                      **D** 20 N