

1 Which statement includes a correct unit?

- A energy = 7.8 N s
- B force = 3.8 N s
- C momentum = 6.2 N s
- D torque = 4.7 N s

2 What is the joule (J) in SI base units?

- A kg m s^{-1}
- B $\text{kg m}^2 \text{s}^{-1}$
- C kg m s^{-2}
- D $\text{kg m}^2 \text{s}^{-2}$

3 The speed of an aeroplane in still air is 200 km h^{-1} . The wind blows from the west at a speed of 85.0 km h^{-1} .

In which direction must the pilot steer the aeroplane in order to fly due north?

- A 23.0° east of north
- B 23.0° west of north
- C 25.2° east of north
- D 25.2° west of north

4 A student is given a reel of wire of diameter less than 0.2 mm and is asked to find the density of the metal.

Which pair of instruments would be most suitable for finding the **volume** of the wire?

- A balance and micrometer
- B metre rule and micrometer
- C metre rule and vernier calipers
- D micrometer and vernier calipers