

3 What is the approximate kinetic energy of an Olympic athlete when running at maximum speed during a 100 m race?

- A 400 J                      B 4000 J                      C 40 000 J                      D 400 000 J

4 Physical quantities can be classed as vectors or as scalars.

Which pair of quantities are both vectors?

- A kinetic energy and elastic force  
B momentum and time  
C velocity and electric field strength  
D weight and temperature

5 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

**Space for working**