

1 Which statement using prefixes of the base unit metre (m) is **not** correct?

A $1 \text{ pm} = 10^{-12} \text{ m}$

B $1 \text{ nm} = 10^{-9} \text{ m}$

C $1 \text{ Mm} = 10^6 \text{ m}$

D $1 \text{ Gm} = 10^{12} \text{ m}$

2 An Olympic athlete of mass 80 kg competes in a 100 m race.

What is the best estimate of his mean kinetic energy during the race?

A $4 \times 10^2 \text{ J}$

B $4 \times 10^3 \text{ J}$

C $4 \times 10^4 \text{ J}$

D $4 \times 10^5 \text{ J}$

3 Which group of quantities contains only vectors?

A acceleration, displacement, speed

B acceleration, work, electric field strength

C displacement, force, velocity

D power, electric field strength, force

Space for working