

1 How long, in picoseconds, does it take for light with a speed of $3 \times 10^5 \text{ km s}^{-1}$ to travel across a virus of diameter $3 \times 10^{-1} \mu\text{m}$?

- A $1 \times 10^{-6} \text{ ps}$
- B $1 \times 10^{-3} \text{ ps}$
- C $1 \times 10^0 \text{ ps}$
- D $1 \times 10^1 \text{ ps}$

2 The resistance of a wire is determined by measuring the current in the wire and the potential