

The speed of light in free space is $c \equiv 2.99792458 \times 10^8$ m/s.

Find the time Δt , for light to travel 1 m.

- A) $3.33564095 \times 10^{-9}$ s
 - B) $3.33564095 \times 10^{-8}$ s
 - C) $3.33564095 \times 10^{-7}$ s
 - D) $3.33564095 \times 10^{-6}$ s
 - E) $3.33564095 \times 10^{-10}$ s
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Since speed $\equiv \frac{\text{distance}}{\text{time}}$, we have

$$\Delta t = \frac{\text{distance}}{\text{speed}} = \frac{1 \text{ m}}{2.99792458 \times 10^8 \text{ m/s}} = 3.33564095 \times 10^{-9} \text{ s}$$

Answer **A**.