

The JETS Challenge

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Challenge 53 – The “In a Jiffy” Challenge

Problem:

The technical definition of a “jiffy” in chemistry and physics is one “light centimeter,” the length of time required for light to travel one centimeter. Light travels at (299,000 km/s) in a vacuum.

How long (in seconds) is a jiffy?

Solution:

$$1 \text{ jiffy} = 1 \text{ light cm}$$

$$299,000 \text{ km/s} = 2.99 \times 10^{10} \text{ cm/s}$$

so

$$1 \text{ jiffy} = \frac{1}{2.99 \times 10^{10} \text{ cm/s}}$$

$$= 0.0000000000334448160535 \text{ seconds}$$

$$= 3.344 \times 10^{-11} \text{ seconds}$$