

## Answer on Question 62031, Physics, Optics

### Question:

If the Sun is 150 million km away from the Earth, how long does it take sunlight to reach the Earth?

### Solution:

In order to find time that needs sunlight to reach the Earth, we divide the distance to the Sun by the speed of light and get:

$$t = \frac{d}{c} = \frac{1.5 \cdot 10^{11} \text{ m}}{3 \cdot 10^8 \frac{\text{m}}{\text{s}}} = 500 \text{ s.}$$

### Answer:

$$t = 500 \text{ s.}$$

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