

## **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:**

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