

Answer on Question #47911, Physics, Mechanics | Kinematics | Dynamics

an electric bulb of 60 W is used for 6 hour per day. calculate the units of energy consumed in one day by the bulb.

Solution:

$$t = 6 \text{ hour} = 6 \cdot 3600s - \text{time};$$

$$P = 60 \text{ W} - \text{power};$$

The formula for the power:

$$Power = \frac{Energy}{time}$$

$$Energy = time \cdot Power = 6 \cdot 3600s \cdot 60 \text{ W} = 1.296 \cdot 10^6 J$$

Answer: energy consumed in one day: $1.296 \cdot 10^6 J$