

What is a Light Year?

1. How many km can light go in a minute? [Light goes 300 million m per second.]

2. How many km can light go in a year? [**This is the definition of a LIGHT YEAR!**]

The Power of a Woman

3. How many watts of power does a woman use in one day?

GIVEN:

- $1 \text{ WATT} = \frac{1 \text{ JOULE}}{1 \text{ SEC}}$

- A WOMAN EATS $\frac{2,000 \text{ CAL}}{1 \text{ DAY}}$

- $1 \text{ CALORIE} = 4,184 \text{ JOULES}$

- $1 \text{ DAY} = 24 \text{ HRS}$

- $1 \text{ HOUR} = 60 \text{ MIN}$

- $1 \text{ MIN} = 60 \text{ SEC}$

$$\frac{4,184 \text{ J}}{1 \text{ CAL}} \times \frac{2,000 \text{ CAL}}{1 \text{ DAY}} \times \frac{1 \text{ DAY}}{24 \text{ HRS}} \times \frac{1 \text{ HR}}{60 \text{ MIN}} \times \frac{1 \text{ MIN}}{60 \text{ SEC}} \times \frac{1 \text{ WATT}}{1 \text{ J/SEC}} = \text{ WATTS}$$