

Intro Quiz #2

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

Given:

- 1 km = 1,000 m
- Light goes 3×10^8 m per 1 second.
- 60 seconds = 1 minute
- 60 minutes = 1 hour
- 24 hours = 1 day
- 365 days = 1 year

2. How many minutes are in a year?

Given:

- 365 days / 1 yr
- 24 hr / 1 day
- 60 min / 1 hr

Estimate: # min / yr

3. How many nanoseconds are in a millenium?

Given:

Estimate: # nanoseconds / millenium

- 1,000 yrs / 1 millenium
- 365 days / yr
- 24 hr / 1 day
- 60 min / 1 hr
- 60 sec / 1 min
- 10^9 nanoseconds / 1 sec

4. How many nm wide is the universe?

Given:

Estimate: # nm / universe

- 1 universe = 30×10^9 light years
- 1 light year = 10^{13} km
- 1 km = 1,000 m
- 10^6 nm = 1 mm
- 10 mm = 1 cm
- 100 cm = 1 m