

Name _____

Date _____

Intro 2

1. Estimate the number of times your heart beats in a day.
2. Convert 6.2 miles into meters.
3. Express 162 m in kilometers.
4. Express 162 μm in kilometers
5. What is the speed of light $3.0 \times 10^8 \text{ m}\cdot\text{s}^{-1}$ in miles per hour?

6. What is the distance of one light year? Show mathematically. (One light year is the distance light travels in one year.)
7. A billionaire offers to give you two options, he will give you 5 billion dollars OR 5 thousand dollars, but there is a catch! If you take the 5 billion, you have to count it out in \$1 bills, at 1 bill per second, and you do not receive the 5 billion dollars until you have counted ALL the money. Which would you choose? Figure out how long it would take to count out 5 billion dollars at one bill per second, allowing for approximately 10 hours a day for sleeping and eating.
8. Noahs ark was ordered to be 300 cubits long, 50 cubits wide, and 30 cubits high. The cubit was a unit of measure equal to the length of a human forearm, elbow to the tip of the longest finger. Express the dimensions of Noahs ark in meters, and estimate its volume (in m^3)