Problem 16

Roughly how many heartbeats are there in a lifetime?

Solution

According to Figure 1.4 on page 10,

$$10^0 \text{ s} = \text{time for one heartbeat}$$

$$10^9 \text{ s} = \text{human lifetime.}$$

Divide the lifetime by the time for one heartbeat to get the total number of heartbeats.

$$\#\text{ of Heartbeats} = \frac{\text{Total Lifetime}}{\text{One Heartbeat}} \approx \frac{10^9 \text{ s}}{10^0 \text{ s}} = 10^9$$