

1. A newborn baby has about 26,000,000,000 cells. An adult has about  $1.9 \times 10^3$  times as many cells as a newborn. About how many cells does an adult have? Write your answer in scientific notation.
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
2. The edge of a cube measures  $3.5 \times 10^{-2}$  meters. What is the volume of the cube in cubic meters? Write your answer in scientific notation.
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
3. The smallest state in the United States is Rhode Island with a land area of about  $2.9 \times 10^{10}$  square feet. The largest state is Alaska whose land area is about  $5.5 \times 10^2$  as great as the land area of Rhode Island. What is the land area of Alaska in square feet? Write your answer in scientific notation.
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
4. Astronomers estimate that the diameter of the Andromeda galaxy is approximately  $2.2 \times 10^5$  light-years. A light-year is the distance light travels in a vacuum in 1 year. One light-year is approximately  $5.9 \times 10^{12}$  miles. What is the diameter of the Andromeda galaxy in miles? Write your answer in scientific notation.

The table below shows the approximate populations of three countries.

Country	China	France	Australia
Population	$1.33 \times 10^9$	$6.48 \times 10^7$	$2.15 \times 10^7$

5. How many more people live in France than in Australia? Write your answer in scientific notation.

6. The area of Australia is about  $2.95 \times 10^6$  square miles. What is the approximate average number of people per square mile in Australia?

7. What is the ratio of the population of China to the population of France? What does this mean?