

PRACTICE PROBLEMS: WORD PROBLEMS WITH SCIENTIFIC NOTATION

For the following problems:

1. Use scientific notation.

2. Don't forget UNITS!

3. Show your work.

1. The body of a 150 lb person contains 2.3×10^{-4} lb of copper. How much copper is contained in the bodies of 1200 such people?
2. The speed of light is approximately 3×10^8 m/s. How far does light travel in 6.0×10^1 seconds?
3. A computer can perform 4.66×10^8 calculations per second. How many calculations can this computer perform in one minute?

4. The size of the Indian Ocean is 2.7×10^7 square miles. The Arctic Ocean is $\frac{1}{5}$ the size of the Indian Ocean. How big is the Arctic Ocean?

5. The speed of light is 3×10^8 m/s. If the sun is 1.5×10^{11} meters from earth, how many seconds does it take light to reach the earth?

6. A liter is equal to 1×10^6 mm³. There are roughly 5×10^6 red blood cells in 1 mm³ of human blood. How many red blood cells are there in a liter of human blood?

7. Lake Superior has roughly 25 times the volume of Lake Erie. If the volume of Lake Superior is approximately 1.22×10^4 km³, what is the approximate volume of Lake Erie?

Name _____

Date _____

Scientific Notation Word Problems - Guided Lesson

Complete the following problems:

1) According to scientists, the Earth's mass is 5.98×10^{24} kilograms. The mass of the Sun is 1.989×10^{30} kilograms. How much greater is the mass of the Sun than the mass of the Earth?



2) Last year, we noticed that the population of Tamworth was 5.6×10^3 . The population of Liverpool was 1.3×10^4 . Which town had a larger population and by how much?

3) In Russia, the population was 290.9 million people in 2002. The total health care costs for the country at that time were \$ 1.7 trillion. Calculate the average amount spent per person on health care.



