

10/2

## Scientific Notation Word Problems

<p><b>Key Words</b></p> <p style="color: green;">Adding</p> <p>All together/in all Sum total</p>	<p style="color: green;">Subtracting</p> <p>less than Difference How many more/how much further left over</p>
<p style="color: green;">Multiplying</p> <p>Product of Twice, double, triple total (if everything is the same)</p>	<p style="color: green;">Dividing</p> <p>Quotient of + How many times more Average</p>

\*\*\*ABOUT means to ROUND\*\*

Oct 2-11:12 AM

A factory builds a new warehouse that is approximately  $1.28 \times 10^5$  square feet. Later, they add on  $1.13 \times 10^3$  more square feet for offices. Use scientific notation to write the total size of the new building.

Addition

$$\begin{array}{r}
 1.28 \times 10^5 \\
 + 0.0113 \\
 \hline
 1.2913 \times 10^5 \text{ square feet} \\
 \text{ft}^2
 \end{array}$$

Label  
 Answer  
 Work

Oct 3-7:41 AM

Mars is approximately  $5 \times 10^4$  kilometers from Earth. Saturn is approximately  $4 \times 10^3$  kilometers from Earth. How much further away is Mars than Saturn?

Subtraction

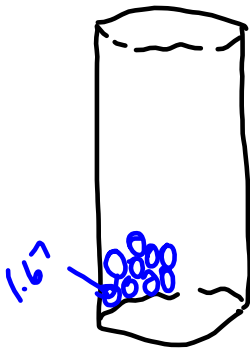
$$5 \times 10^4 - 4 \times 10^3$$

$$\boxed{4.6 \times 10^4 \text{ Km}}$$

$$\begin{array}{r} 5.0 \\ - 0.4 \\ \hline 4.6 \end{array}$$

Oct 3-7:41 AM

The mass of one hydrogen atom is  $1.67 \times 10^{-27}$  kilograms. A cylinder contains  $3.01 \times 10^{23}$  hydrogen atoms. What is the total mass of the hydrogen?



$$1.67 \times 10^{-27} \times 3.01 \times 10^{23}$$

$$\begin{array}{r} 1.67 \\ \times 3.01 \\ \hline \end{array}$$

$$\boxed{5.0267 \times 10^{-4} \text{ Kg}}$$

$$\begin{array}{r} -27 \\ +23 \\ \hline -4 \end{array}$$

Oct 3-7:41 AM

The diameter of Mars is about  $6.8 \times 10^3$  kilometers. The diameter of Earth is about  $1.2763 \times 10^4$  kilometers. About how many times as great is Earth's diameter than the diameter of Mars?  
1st 2nd

$$\frac{1.2763 \times 10^4}{6.8 \times 10^3}$$

$$0.188 \times 10^1$$

$$1.88 \times 10^0$$

$$1.88 \times 1$$

$$1.88$$

About  
Means  
Round

~ 2 times  
bigger

Oct 3-7:42 AM