

## Self-Check for Tutorial 2 Scientific Notation: Computation

1. The speed of light is  $3.00 \times 10^8$  meters per second.  
How far does light travel in a day? Write the answer in scientific notation form.
2. A 24.5 kg sample of granite contains 6.86 kg of quartz. How much quartz is in a kg?
3. What is the GPE of a measuring device that has the smallest unit of a measure as .01 m?
4. A 24.5 lb sample of granite contains 6.86 lbs of quartz. How much quartz is in a lb?
5. What is the GPE of a measuring device that has the smallest unit of a measure as  $\frac{1}{32}$  in?

## Solutions to Self-Check for Tutorial 2 Scientific Notation: Computation

1. The speed of light is  $3.00 \times 10^8$  meters per second. How far does light travel in a day? Write the answer in scientific notation form.

Light will travel  $2.59 \times 10^{13}$  m in a day.

3. What is the GPE of a measuring device that has the smallest unit of a measure as .01 m?

The GPE is .005 m.

5. What is the GPE of a measuring device that has the smallest unit of a measure as  $1/32$  in?

The GPE is  $1/64$  in.

2. A 24.5 kg sample of granite contains 6.86 kg of quartz. How much quartz is in a kg?

There is .720 kg of quartz in 1 kg of this granite sample.

4. A 24.5 lb sample of granite contains 6.86 lbs of quartz. How much quartz is in a lb?

There is 0.280 lb of quartz in 1 lb of this granite sample.