

Close and Check

Focus Question

How can positive powers of 10 make large numbers easier to write and compare?

Do you know **HOW**?

1. The X-15 aircraft holds the world speed record at 23,865,600 ft/hr. Express the world record speed in scientific notation.

2. The population on Earth increased by about 7.62×10^8 people during the first decade of the 21st century. Express the population growth in standard form.

 people

3. One giant ant colony is reported to have about 3.06×10^8 worker ants and 1.02×10^6 queen ants. The number of worker ants is how many times the number of queen ants?

Do you **UNDERSTAND**?

4. **Writing** Your best friend has never learned about scientific notation. Explain how to use scientific notation to rewrite very large numbers.

5. **Error Analysis** A friend says the average distance to the moon is 382,500 km. Is the number he wrote accurate? Explain.

$$3.825 \times 10^6$$
