Unit 1 Lesson 12 – Operations in Scientific Notation

Express each answer in scientific notation.

1.) 4.5 x 107 + 41,000,000

2.) (2.4 x 104)(3,000)

3.) $\frac{5.4×10^{8}}{2,000}$

4.) 8.2 x 10-5 – 0.000059

5.) (3 x 10-6)(3,000,000,000)

6.) 5.2 x 107 – 12,000,000

7.) $\frac{4.8×10^{12}}{400}$

8.) 3.9 x 105 + 420,000

9.) The Confederation Bridge connects New Brunswick to Prince Edward. The main part of the bridge rests on piers that form 43 segments. The length of one segment is 8.2 x 102 ft. What is the approximate length of the main part of the bridge?

10.) Light travels approximately 300,000,000 meters per second. Sound travels at 300 meters per second. About how many times faster is the speed of light than the speed of sound?

11.) In 2011, there were 5.957 x 109 cell phone subscriptions worldwide. In 2001, there were 961,000,000 cell phone subscriptions worldwide. Determine how many more cell phone subscriptions there were in 2011 than in 2001.

12.) A queen ant lays 1.83 x 106 eggs over a period of 30 days. Assuming she lays the same number of eggs each day, about how many eggs does she lay in one day?

13.) A bacteriologist estimates that there are 5.2 x 104 bacteria growing in each of 20 petri dishes. About how many bacteria in total are growing in petri dishes?

14.) The land area of the United States is about 9,160,000 km2. The water area is about 6.65 x 105 km2. What is the total area of the United States?