

B. Understanding Concepts

In the space to the left, write the letter of the answer to each question.

- _____ 1. Which of the following SI prefixes means 1/100?
a. milli b. centi c. kilo d. micro
- _____ 2. Which of the following SI prefixes means 1000?
a. milli b. centi c. kilo d. micro
- _____ 3. Which quantity listed below has a derived unit?
a. length b. area c. mass d. time
- _____ 4. In scientific notation, 1 000 000 m should be written as
a. 1×10^5 m b. 1×10^{-5} m c. 1×10^{-6} m d. 1×10^6 m
- _____ 5. In scientific notation, 0.000 04 s should be written as
a. 4×10^{-5} s b. 4×10^5 s c. 4×10^{-6} s d. 4×10^6 s
- _____ 6. 4.0×10^4 cg plus 3×10^3 cg equals
a. 7×10^7 cg b. 4.3×10^4 cg c. 7×10^3 cg d. 4.3×10^{12} cg
- _____ 7. 6.8×10^9 mm minus 5.0×10^8 mm equals
a. 1.3×10^1 mm b. $1.3 \times 10^{8.5}$ mm c. 6.3×10^9 mm d. 0.63×10^0 mm
- _____ 8. 4.0×10^{12} m times 8.0×10^6 m equals
a. 3.2×10^{18} m² b. 3.2×10^{17} m² c. 3.2×10^2 m² d. 3.2×10^{19} m²
- _____ 9. 3×10^8 s divided by 1×10^{-7} s equals
a. 3×10^{15} b. 3×10^1 c. 3×10^{-56} d. 3×10^{56}
- _____ 10. Using significant digits, the solution to the addition problem (43.2 m + 6.97 m + 12 m + 0.008 m) should be written as
a. 62 m b. 62.2 m c. 62.18 m d. 62.187 m
- _____ 11. Which of the following measurements has two significant zeros?
a. 0.70 g b. 8.006 km c. 1800 m d. 0.0009 kg
- _____ 12. Which of the following measurements has three significant digits?
a. 880 m b. 0.008 m c. 0.0880 m d. 880.0 m
- _____ 13. If multiplying 35.24 m by 0.13 m, the answer recorded to the correct number of significant digits would be
a. 5 m² b. 4.6 m² c. 4.58 m² d. 4.581 m²
- _____ 14. 300 cm equals
a. 0.03 m b. 0.3 m c. 3 m d. 30 000 m