

Ch. 2 Test Review: Measurements and Calculations.

The test for Ch. 2 covers: 1) lab safety, 2) dimensional analysis, 3) scientific notation, 4) significant figures, and 5) the metric system. If you can correctly answer these questions, you should perform well in the test. I will provide you with a copy of the conversion factors chart.

1. A measurement that closely agrees with accepted values is said to be _____.
2. If 1 inch equals 2.54 cm, how many centimeters equal 3 yards?
3. The most appropriate SI unit for measuring the length of an automobile is the _____.
4. The number of significant figures in the measurement 0.000 405 kg is _____.
5. 1.06 L of water is = _____ mL
6. List the SI base units. (The units that have a value of 1.0)
7. A volume of 1 cubic centimeter is equivalent to _____
8. To two significant figures, the measurement 0.0355 g should be reported as _____
9. The metric unit for length that is closest to the thickness of a dime is the _____.
10. If some measurements agree closely but differ widely from the actual value, these measurements are _____
11. A measurement is said to have good precision if it _____
12. The symbol for the metric unit used to measure mass is _____
13. How many significant figures in the number 0.006? _____
14. The number of grams equal to 0.7 kg is _____.
15. The SI base unit for length is the _____.
16. The speed of light is 300 000 km/s. In scientific notation, this speed is _____.
17. 0.25 g is equivalent to _____ mg.
18. Written in scientific notation, the measurement 0.000 075 cm is _____.
19. The symbol that represents the measured unit for length is _____.
20. How many significant figures in the number 1.006? _____
21. The average distance between the Earth and the moon is 386 000 km. Expressed in scientific notation, this distance is _____.
22. The symbol mm represents _____
23. A measure of the quantity of matter is _____
24. 0.05 cm is equal to _____ mm.
25. The symbols for units of length in order from smallest to largest are (*think prefixes*)
26. The number of significant figures in the measurement 180.060 km is _____
27. Express the solution to this problem using proper scientific notation. $(5.96 \times 10^4) + (3.91 \times 10^6)$
28. 5168 g = _____ lb
29. Express the solution to this problem using proper scientific notation. $(6.00 \times 10^{-3}) \times (3.91 \times 10^6)$
30. Convert using dimensional analysis: 5977 mm = _____ in
31. Convert using dimensional analysis: 6.0 miles = _____ km. Use correct significant figures!
32. Convert using dimensional analysis: How many minutes are in 2 weeks?