

6. Convert 0.5 gallon to milliliters.

7. Find the number of pm if there are there in 6.51 miles.

8. Convert 20 miles/hour to inches/second.

9. Change 65 liters/second to cups/day.

10. *Solve for **H** using the formula $QH/Y = A/CN$.

11. *Solve for **M** using the formula $AB/M = CD/K$.

12. An object has a density of 0.790 g/cm^3 . Find the mass (in grams) of 3.4 pints of this object.

13. State how many significant figures each of the following has:

a. 0.005780 _____

b. 2,500,140 _____

c. 450.00 _____

d. 780,000.0 _____

e. 0.00025700 _____

f. 2,250 _____

14. Round each of the numbers below to 3 significant figures and put in scientific notation.

a. 0.005780 _____

b. 2,508,140 _____

c. 450.00 _____

d. 780,000.0 _____

e. 0.00025759 _____

f. 2,000 _____

15. Solve using correct significant figures.

a. $0.0000358/739,190$

b. $12,024.099 + 998,088.1$

c. $(302.532 + 4.50) \times (456.00 - 19383)$

d. $(505.8 - 6.97) \div (45.8 + 67.82)$

16. Convert 455°C to kelvin.

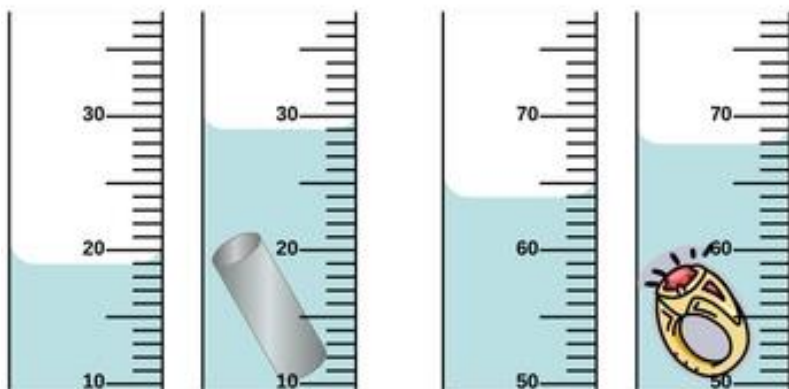
17. Convert 79.5 Kelvin to Celsius.

18. Determine the volume of a room (include the correct number of significant figures) if its length width and height are 15.4 feet by 9.0 feet by 10.5 feet.

19. Suppose a student adds water to a graduated cylinder (shown in the picture – units are mL) and then adds a metal cylinder to the graduated cylinder (left) and ring to the graduated cylinder (right).

a. Make a data table that would be used in the lab for this experiment. (*Hint: data tables should always have a title*)

b. Determine the volume of the metal cylinder & the ring that were added to the graduated cylinder.



20. Convert 4.9×10^{19} liters/second to in^3/day .

21. *If the density of an object is 12.7 g/cm^3 then determine the mass (in ounces) of 5.5 decaliters of the object.

22. a. The SI prefix corresponding to a factor of 10^{-9} is _____.

b. The SI prefix corresponding to a factor of 10^6 is _____.

23. Write out the metric conversions Tera through Pico from memory below including the prefix with its abbreviation and the power of 10 that corresponds to that prefix.

24. Vocabulary & lab safety

Word Bank: Measurement, Scientific notation, Units, SI unit, Vertical, Volume, Mass, Horizontal, Significant figures, Conversion factor, Diagonal, Dimensional analysis, Density.

a. _____ - International System of units based on the metric system and on units derived from the metric system

b. Carry glass tubing, especially long pieces, in a _____ position to minimize the likelihood of breakage and injury.

25. 1 kilogram = _____ milligrams

a) 10^3

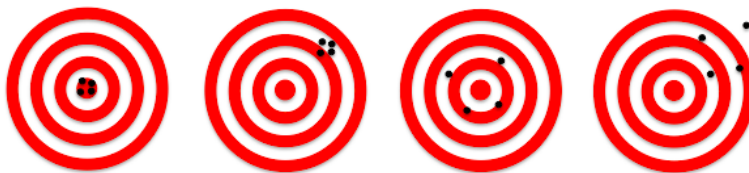
b) 10^6

c) 10^{-6}

d) 10^4

e) 10^{-4}

26. Tell if the following is accurate, precise, both or neither.



The Test Format

Most tests in CP1 are about 50% exam soft (multiple choice, vocab, true false...) and 50% free response on paper.

For every test, on the multiple choice part 10 points will be vocabulary & lab safety. The vocabulary words come from the vocabulary list (on the left side of Topics on MoeCampus). A work bank is provided (spelling does count), and the definition is the exact definition from the textbook. There are one or two lab safety questions on every test. They come from the lab safety contract that you and your parents signed at the beginning of the school year.

When labs are completed throughout the year, expect to have at least one question related to the lab on that test. Know the general procedure of the lab, know the purpose of the lab, and be able to answer conceptual questions related to the lab. Also, know the name of each piece of lab equipment that we use and its purpose!!

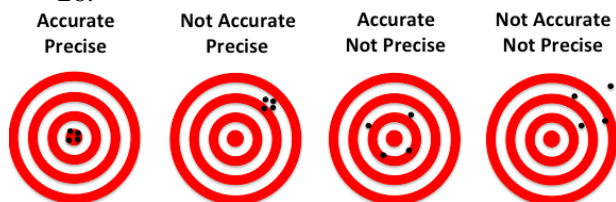
A chapter summary may be turned in on test day to earn points back on the test. See Topics – Important Documents for the expectations of a chapter summary and to see an example.

Answers: Only check the answers only after you have completed the review. All answers have correct significant figures. Practice is important to help you understand what you need to focus on when studying.

1. 59 mL
2. 200 g
3. 5×10^5 mg
4. 4.28×10^{11} cL
5. 5.602×10^{-3} kg
6. 2000 mL
7. 1.05×10^{16} pm
8. 400 in/second
9. 2.4×10^7 cups/day
10. $H = AY / CNQ$
11. $M = KAB / CD$
12. 1300 g
13. a. 4 b. 6 c. 5 d. 7 e. 5 f. 3
14. a. 5.78×10^{-3} b. 2.51×10^6 c. 4.50×10^2 d. 7.80×10^5 e. 2.58×10^{-4} f. 2.00×10^3
15. a. 4.84×10^{-11} b. 1,010,112.2 c. -5,811,200 d. 4.391
16. 728 Kelvin
17. -193.5°C
18. 1500 ft^3
19. -

	Metal Cylinder	Ring
Volume before (mL)	18.9	63.9
Volume after (mL)	29.0	68.0
Volume of object (mL)	10.1	4.1

20. $2.6 \times 10^{26} \text{ in}^3/\text{day}$.
21. 25,000 ounces.
22. a. nano (n), b. mega (M).
23. $10^{12} = 1$ **tera-** (T-), $10^9 = 1$ **giga-** (G-), $10^6 = 1$ **mega-** (M-), $10^3 = 1$ **kilo-** (k-), $10^2 = 1$ **hecto-** (h-), $10^1 = 1$ **deca-** (da-), $10^{-1} = 1$ **deci-** (d-), $10^{-2} = 1$ **centi-** (c-), $10^{-3} = 1$ **milli-** (m-), $10^{-6} = 1$ **micro-** (μ -), $10^{-9} = 1$ **nano-** (n-), $10^{-12} = 1$ **pico-** (p-)
24. a. SI unit, b. Vertical.
25. b) 10^6
26. -



See MoeTube "102 Chapter 2 Review" for an explanation of each answer above. This should only be used to check the work for those that you did not get correct when working the review.