1. Using a metric ruler with 1 mm divisions, you find the sides of a rectangular piece of plywood are 3.7 cm and 4.85 cm. You calculate that the area is 17.945 cm². To the correct number of significant figures, the result should be expressed as

      A. 17.95 cm²   B. 17.945 cm²   C. 18 cm²   D. 17.9 cm²

2. What is the sum of 6.079 g + 0.07772 g + 3.00 g?

      A.   9.15672 g   B. 9.160 g³   C. 9.16 g   D. 9.157 g

3. A Florence flask can contain 550. mL of liquid. What is the capacity of the flask in Liters written correctly in scientific notation?

      A. 5.50×10^{-1} L   B. 5.5×10^{2} mL   C. 5.50×10^{2} mL   D. 5.50×10^{5} L

4. The density of aluminum is 2.70 g/cm³. The mass of a solid piece of aluminum is 3.32 g. What is its volume?

      A. 6.02 cm³   B. 0.813 cm³   C. 1.23 cm³   D. 8.96 cm³

5. How many grams are in 1 kilogram?

      A.   0.001   B. 10   C. 100   D. 1000

6. Which of the following units would be most appropriate to use for measuring the volume of soda in a can of Coca-Cola?

      A.   mL   B. °C   C. cm   D. mg

7. In addition and subtraction, the significant figures in the answer must reflect the

      A.   number in the calculation with the fewest significant figures
      B.   number in the calculation with the most significant figures
      C.   average number of significant figures in the problem
      D.   least precise measurement in the calculation (i.e. least number of decimal places)

8. In division and multiplication, the answer must not have more significant figures than the

      A. number in the calculation with the fewest significant figures
      B. number in the calculation with the most significant figures
      C. average number of significant figures in the problem
      D. least precise measurement in the calculation (i.e. least number of decimal places)

9. How many seconds are there in 2 days?

      A. 86,400 sec   B. 172,800 sec   C. 1,728 sec   D. 17,280 sec

10. The number of significant figures in the measurement 0.050010 kg is

      A.   7   B. 5   C. 4   D. 2

11. The number of significant figures in the measured value 3400 g

      A.   4   B. 3   C. 2   D. 1