Name _____ date _____ period _____

Math Skills Test **FORM B**

Multiple Choice

1. An example of an English or British unit is a
   a. Liter
   b. Foot
   c. Kilogram
   d. kilometer

2. Measurements are always uncertain because
   a. Instruments aren't precise
   b. Measurement involves some estimation
   c. Both a and b
   d. Gravity affects different things differently

3. Zeros are always considered significant digits when they
   a. Are at the end of a number that has a decimal.
   b. Occur between two non zero numbers
   c. Both a and b
   d. Are before the decimal point

4. A possible unit of measurement for density is
   a. g/cm^3
   b. g/s.
   c. $g/^o C$
   d. g/Kg.

5. The technique of dimensional analysis is used to
   a. Convert units
   b. Analyze which dimension your life is in
   c. Evaluate TV shows like the Twilight Zone
   d. Analyze different viewpoints.

6. A conversion factor is
   a. One of Max Factor's relatives that has changed religions.
   b. someone who changes money from one country's currency to another.
   c. a way to measure things
   d. a fraction that equals one.

Give the value of the following metric prefixes

7. kilo _____ 8. centi _____ 9. milli _____

How many significant digits are in each of the following measurements ?

10. 0.000 856 _____ 11. 9 800 000 _____

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12. 508 _____ 13. 174.0010 _____

Put the numbers **into** scientific notation

14 0.000 856 _____ 15. 9 800 000 _____

16. 508 _____ 17. 174.0010 _____

Expand the numbers, or take OUT of scientific notation. Give the answer

18. 1.2345×10^{5} _____ 19. 1.2345×10^{-3} _____

Perform the calculations and round your answer to the proper number of significant digits or decimal places. Remember to write the units and SHOW YOUR WORK!

20. 20.0 cm x 2.00 cm x 5 cm

21. $\frac{84.0\ g}{4.0\ mL}$

22. 12.0 m + 20.12 m + 18.2 m

23. 575 g – 25.0 g

Convert 75 cg into each of the following units

24. 75 cg = _____ mg 25. 75 cg = _____ kg

Convert the following using Dimensional Analysis, SHOW YOUR WORK!

1 in = 2.54 cm 12 in = 1 ft 100 cm = 1 m
100 ml = 1 L 1 cup = 8 fl. oz. 1 cup = 250 mL

26. How many inches are in a 5 km race?

27. 32 fl. oz. = _____ L.

28. Find the perimeter of room if one wall is 10.00 $\pm$ 0.03m and the other wall measures 15.00 $\pm$ 0.03 m. Give the uncertainty (answer and the $\pm$ error term).

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