**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Using your *calculator*, answer the following:**

1. (1.576 x 1025) x (2.4 x 10-15) = 2. (7.642 x 103) / (4.623410 x 10-5) =

3. (5.27 x 104) / (6.1 x 103) = 4. (5.97 x 10-8) x (6.98 x 108) =

**Using the following words, fill in the blanks:**

compound element homogeneous mixture heterogeneous mixture

5. Alloys are an example of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

6. NaCl is the chemical composition of table salt. It is a/an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. Some examples of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(s) are potassium and carbon.

8. Chicken noodle soup is a/an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

9. Solutions are a special type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(s) where different elements are not bonded to each other.

10. The periodic table is made up of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(s).

11. Cake batter is an example of a/an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

12. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs when more than one \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(s) are bonded to each other.

**How many significant figures will be in your answer?**

13. 52.85 x 15.0 14. 70,000 / 53.82

15. .000465 / 0.5300 16. 8422 x 7010

17. 6193 / 0.0010 18. 700. x 56.90

**Metric Units**

19. If you’re traveling 500 km, should you walk, bike, or take a plane?

20. Which metric unit should be used to measure the thickness of your hair? (nm, cm, m, or km)

21. Rank the following units from largest to smallest: nanometer, decameter, meter, terameter

**Convert the following to the base unit:**

22. 65,954 ng = 23. 0.0009381 Gm =

24. 500 Mm = 25. 200 mL =

26. 0.893 kL = 27. 9430 cg =

**Round to 3 significant figures:**

28. 500 29. 1573.999

30. 17 31. 8589

32. 1.008 33. 7.10499

**Perform the following conversions. Make sure that your answer has the same # of significant digits as the # you start with. That might mean you need to write some answers in scientific notation:**

34. 0.000016 Mm to mm 35. 0.532 GL to kL

36. 548,000,000 pg to Dg 37. 0.7 meters to micrometers

38. 0.00054 km to m 39. 5,555 mg to hg

**Label the following as physical or chemical changes:**

40. Eating dinner 41. Dissolving salt in water 42. Baking a pie

43. Boiling water 44. Iron rusting 45. Tossing a salad

46. Sublimating dry ice to gaseous carbon dioxide 47. Shredding paper

48. Burning wood 49. Writing with pencil lead

50. Mixing zinc and copper to form brass

List the four indicators of a chemical change:

51.

52.

53.

54.

**Make sure you know:**

Significant figures Scientific notation Metric conversions

Classification of Matter Physical and chemical changes