

NAME:

PERIOD:

DATE:

MEASURING SYSTEMS AND TOOLS: REVIEW

PART ONE: Metric System versus the English System

1. What measuring system do we use in the United States?
2. What measuring system does the rest of the world (other than two countries) use?
3. What is a unit?

4. List an English unit for measuring the following things:

length –

volume –

mass –

temperature –

5. List a Metric unit for measuring the following things:

length –

volume –

mass –

temperature –



6. What was the basis for the English system's foot, yard, and inch?
7. What was the basis for the Metric system's units? (There are two things.)
8. Describe how the Fahrenheit thermometer was made differently than the Celsius thermometer.
9. What makes the English system harder to use than the Metric system?
10. Which system is more accurate, English or Metric, and why?



PART TWO: Using rulers

11. When using a classroom ruler, how many marks are there between each inch?
12. When using a classroom ruler, how many marks are there between each centimeter?
13. If you half a broken ruler, and that half started at the 6, could you still make accurate measurements? How?

14. If I was using a classroom ruler, and the line I was measuring was four marks after the 4 inch mark, what would my measurement be?

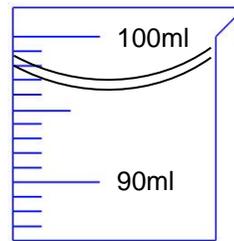
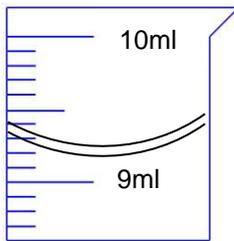
15. If I was using a classroom ruler, and the line I was measuring was 5 marks after the 5 centimeter mark, what would my measurement be?

16. If I was using a classroom ruler, and the line I was measuring was right on the 9 centimeter mark, what would my measurement be?

PART THREE: Measuring Volume

17. What is the definition of volume?

18. Read the cylinders below. Write the volume next to each.



19. What are the three rules for using a graduated cylinder?
--
--
--

20. What are the units for using a graduated cylinder?

21. True or False. The heavier an object is, the larger it's volume.



PART FOUR: Measuring Mass

22. What is the definition of weight?

23. What is the definition of mass?

24. What is the definition of matter?

25. What tool do we use to measure mass, and what units does it measure in?

26. What are the three steps for getting a triple beam balance ready to use?

--
--
--

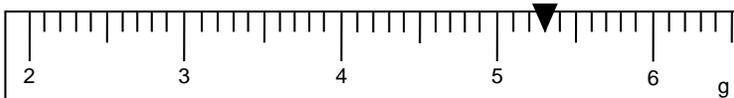
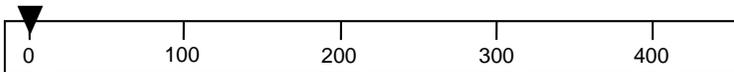
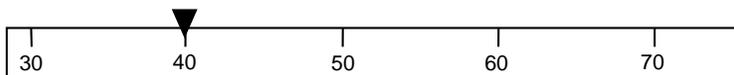
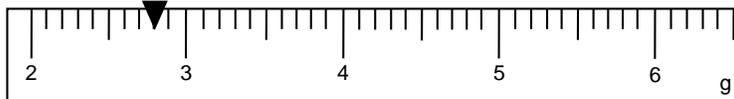
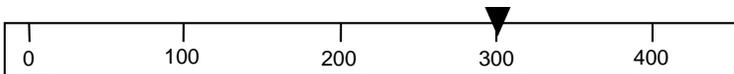
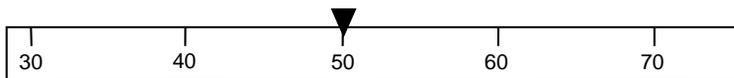
27. A person weighing 100lbs on Earth goes into outer space. What is their mass? What is their weight?

Mass -

Weight -

28. What is the word for “setting the balance to zero?”

29. Read the balances below. Write the mass to the right of the balance.



PART FIVE: Measuring Density

30. What is the definition of density?

31. What is the mathematical formula for density?

32. Calculate the density of the following objects. Show your work.

A rubber ball with:

mass = 20 grams
volume = 10 milliliters

A piece of wood with:

mass = 10 grams
volume = 50 milliliters

rubber ball's density =

piece of wood's density =

33. Water has a density of 1.0 g/mL. Answer the following question using that information.

I put the rubber ball and piece of wood from the previous question into a bucket of water. Did they sink or float in the water?

Explain why for each one.

34. I took the rubber ball, and carefully cut it in half with a sharp knife. What is the density of each half of the rubber ball?

Show your work.