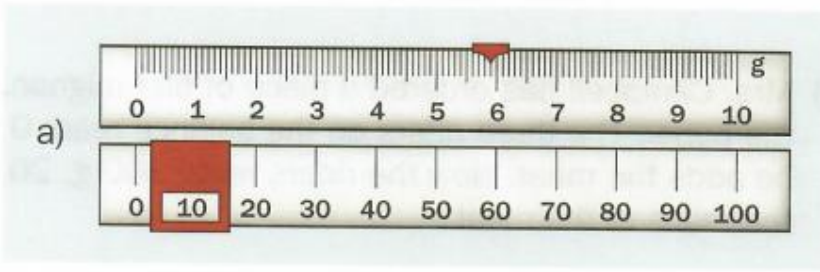Name: _____   Date: _____
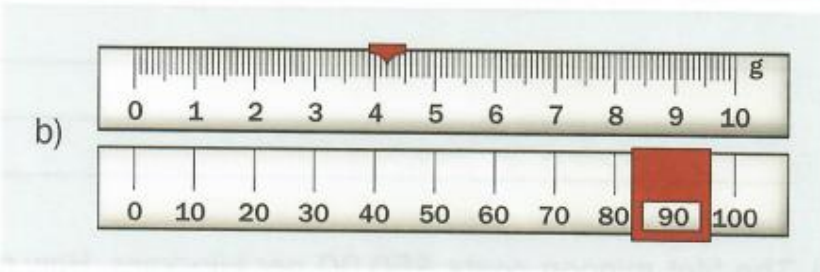
Density In-Class Assignment

Remember to show all your work!

1. What is the mass shown on each of the balances below?
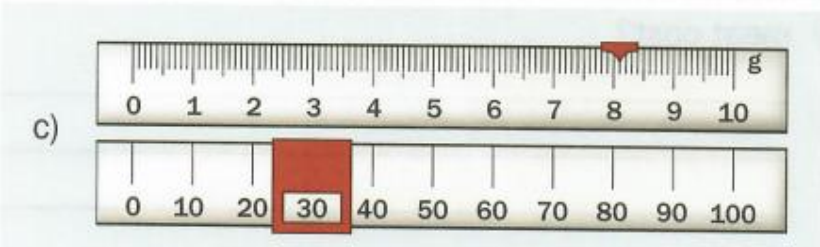
a) _____

b) _____

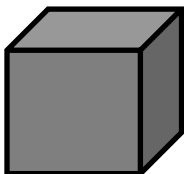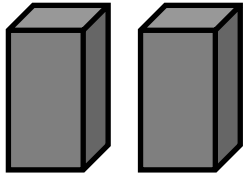c) _____

2. Write the density formula below. (Hint: Δ)

3. Calculate the density of the metal cube shown below. The mass is 8 grams and the volume is 4 cm³.

1

4. Imagine that the cube in the previous example is split in half exactly:

What is the mass of one half of the cube? _____

What is the volume of one half of the cube? _____

Calculate the density for one half of the cube.

5. What is the density of a 100g cube, with the following dimensions?
Length is 2cm, width is 5cm, and height is 4cm

/2

6. Substance A has a mass of 15g and a volume of 1000mL. Substance B has a mass of 10g and a volume of 1000mL. Which substance has a greater density? Explain your answer by drawing a diagram to represent the situation.

/2

7. Which of the following has a lower density? Explain your answer.

A   B
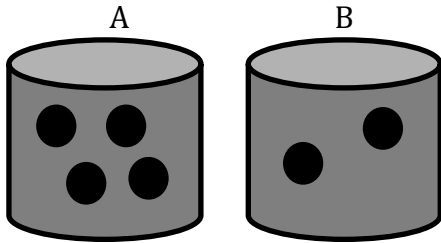
/2

8. A pebble in a graduated cylinder of water raised the water level from 10.1mL to 25.2mL. The mass of the pebble is 3.6g. What is the density of the pebble?

/2

9. A block of wood has the following measurements: length = 15mm, width = 2.0cm, height = 45mm. If the mass of the block is 47.25g, what is the density?

/2