

Name _____

Date _____

Hour _____

CLASS PRACTICE DENSITY NOTES

**Use THIS to help you with your homework page.

$volume = length \times width \times height$

$$density = \frac{m}{v}$$

Label cm^3

Label g/cm^3

1. An iron cube measures 5cm X 5cm X 5cm. What is its volume?
2. If the same iron cube's mass is 3.2kg, what is its density in g/cm^3 ?
3. What is the density of a block of chocolate measuring 3cm X 4cm X 1cm, with a mass of 6g?
4. What is the density of a block of wood measuring 0.6cm X 3cm X 8cm with a mass of 8.4g?
5. What has the greater density, a cube of water measuring 2cm X 2cm X 2cm and having a mass of 8g, or a block of plastic measuring 2cm X 3cm X 5cm with a mass of 4g?
6. What is the density of a **cube** of paper measuring 7cm on each side and its mass is 82g?

Water has a density of approximately $1g/cm^3$. In fact $1cm^3$ of water used to be the standard for a gram. Objects will sink if their density is greater than water and will float if their density is less. For the following problems, decide if the block will sink or float.

7. A **cube** measuring 5cm on each side and its mass is 25g; will it sink or float?
8. A block has a mass of 45g and measures 4cm X 2cm X 4cm; will it sink or float?
9. A hollow iron **cube** has measures 4cm on each side and has a mass of 30g. Will the iron cube sink or float?
10. A **cube** made of very old hard wood, has a mass of 68g and measures 9cm a side, will it sink or float?