Name: _____
Date: _____
Period: ____

What did you have for dinner last night? _____

♫ Dee Dee Dee Density ♫

Matching…yes, there's one extra answer.

____1) density
____2) liquid
____3) kg/m^3
____4) m^3
____5) volume
____6) mass
____7) solid
____8) gas

A. The amount of matter in an object.
B. State of matter that takes its own shape.
C. The amount of matter in a certain amount of space.
D. State of matter that takes the shape of its container.
E. State of matter where atoms are moving very fast.
F. Density unit that would be used for a small rock.
G. Density unit that would be used for a planet.
H. The amount of space something takes.
I. Unit of volume.

Use the chart to answer the following questions.

Object	Density (g/m^3)
Acrylic	1.1 – 1.2
Aluminum	2.7
Brass	8.5
Copper	8.9
Iron	7.9
Lead	11.36
Oak	0.6 – 0.9
Pine	0.45
Polypropylene	0.90 – 0.92
PVC	1.4
Steel	7.9
Water (liquid)	1.0

1) How much mass would 2 cm^3 of brass be? Show work.

2) What would be more dense, 3 kg of steel or 50 kg of copper? Why?

3) What do you think the density of ice should be (give an educated guess)? Why?

Short answer. Provide a good explanation!

1) How does matter change phases (make sure to explain what is happening at to the atoms)?

2) Calculate the density of a 300 g, 26 cm^3 piece of metal (show your work).

3) How can 2 objects both have the same weight but have different densities (use examples)?

4) Explain how the density of an element depends on its state (or phase) of matter and its atomic number.

5) Calculate the density of a 40 N cube of mystery that is 30 cm in length.