Name: Date: Score: / 8

Density: Learn and Practice

How much stuff is packed into a space?

Read each question. Circle the best answer.

💡 Density

- Density tells how much mass is packed into a certain volume.
- To find density, divide the mass by the volume.
- Objects less dense than water float, and denser objects sink.
- 20 grams in 10 cubic centimeters: 2 grams per cubic centimeter

1 What is density?

A. How hot an object is

B. Mass packed into a volume

C. How fast an object moves

D. How tall an object is

2 You cut a steel bar in half. What happens to the density of each piece?

A. It halves B. It doubles C. It stays the same

D. It becomes zero

3 How do you calculate density?

A. Volume divided by mass

B. Mass divided by volume C. Mass plus volume

D. Mass times volume

4 🧱 Which is denser, a brick or a same sized block of foam?

A. Neither has density B. The foam

C. The brick D. They are equal

5 Water has a density of 1 gram per cubic centimeter. A cork is less dense. What does the cork do in water?

A. Melts B. Dissolves C. Floats D. Sinks

6 Which unit could be used for density?

A. Degrees Celsius

B. Grams per cubic centimeter C. Newtons

D. Metres per second

7 A rock has a mass of 30 grams and a volume of 10 cubic centimeters. What is its density?

A. 3 grams per cubic centimeter

B. 20 grams per cubic centimeter

C. 300 grams per cubic centimeter

D. 0.3 grams per cubic centimeter

8 A 50 gram block has a volume of 25 cubic centimeters. Will it float in water?

A. No, it has no density

B. Yes, its density is 2, so it floats

C. Yes, its density is one half

D. No, its density is 2, so it sinks

✏️ Explain it! Write two facts you learned about density.

ANSWER KEY

Density: Learn and Practice (answers)

How much stuff is packed into a space?

Read each question. Circle the best answer.

1 What is density?

A. How hot an object is

B. Mass packed into a volume

C. How fast an object moves

D. How tall an object is

Density compares mass to volume. It tells how tightly matter is packed.

2 You cut a steel bar in half. What happens to the density of each piece?

A. It halves B. It doubles **C. It stays the same**

D. It becomes zero

Both mass and volume halve, so the density stays the same. Density belongs to the material.

3 How do you calculate density?

A. Volume divided by mass

B. Mass divided by volume C. Mass plus volume

D. Mass times volume

Divide the mass by the volume to find density.

4  Which is denser, a brick or a same sized block of foam?

A. Neither has density B. The foam

C. The brick D. They are equal

Same size but much more mass means the brick is denser.

5 Water has a density of 1 gram per cubic centimeter. A cork is less dense. What does the cork do in water?

A. Melts B. Dissolves **C. Floats** D. Sinks

Things less dense than water float, so the cork bobs on top.

6 Which unit could be used for density?

A. Degrees Celsius

B. Grams per cubic centimeter C. Newtons

D. Metres per second

Density is mass over volume, so its unit is grams per cubic centimeter.

7 A rock has a mass of 30 grams and a volume of 10 cubic centimeters. What is its density?

A. 3 grams per cubic centimeter

B. 20 grams per cubic centimeter

C. 300 grams per cubic centimeter

D. 0.3 grams per cubic centimeter

30 divided by 10 is 3, so the density is 3 grams per cubic centimeter.

8 A 50 gram block has a volume of 25 cubic centimeters. Will it float in water?

A. No, it has no density

B. Yes, its density is 2, so it floats

C. Yes, its density is one half

D. No, its density is 2, so it sinks

50 divided by 25 is 2, which is denser than water at 1, so it sinks.