

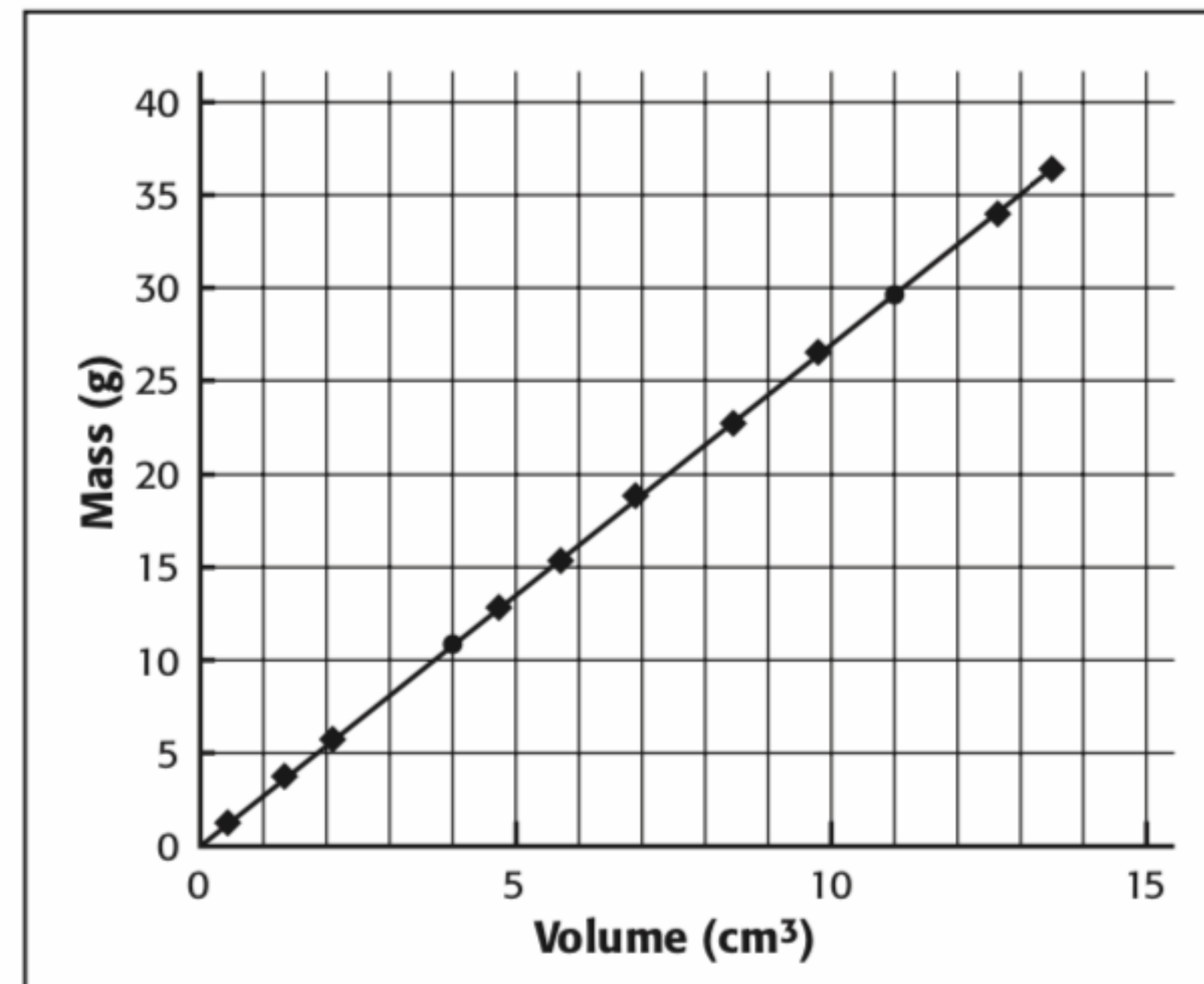
INTERPRETING GRAPHICS

Directions (9–12): For each question below, record the correct answer on a separate sheet of paper.

The table and graph below show a relationship of direct proportionality between mass (grams) versus volume (cubic centimeters). Use it to answer questions 9 through 12.

Mass Vs. Volume for Samples of Aluminum

Block number	Mass (g)	Volume (cm ³)
1	1.20	0.44
2	3.69	1.39
3	5.72	2.10
4	12.80	4.68
5	15.30	5.71
6	18.80	6.90
7	22.70	8.45
8	26.50	9.64
9	34.00	12.8
10	36.40	13.5



- 9 Based on information in the table and the graph, what is the relationship between mass and volume of a sample of aluminum?
- F. no relationship
 - G. a linear relationship
 - H. an inverse relationship
 - I. an exponential relationship
- 10 From the data provided, what is the density of aluminum?
- A. 0.37 g/cm³
 - B. 1.0 g/cm³
 - C. 2.0 g/cm³
 - D. 2.7 g/cm³
- 11 Someone gives you a metal cube that measures 2.0 centimeters on each side and has a mass of 27.5 grams. What can be deduced about the metal from this information and the table?
- F. It is not pure aluminum.
 - G. It has more than one element.
 - H. It does not contain any aluminum.
 - I. It is a compound, not an element.
- 12 The density of nickel is 8.90 g/cm³. How could this information be applied, along with information from the graph, to determine which of two pieces of metal is aluminum, and which is nickel?



Test TIP

Slow, deep breathing may help you relax. If you suffer from test anxiety, focus on your breathing in order to calm down.