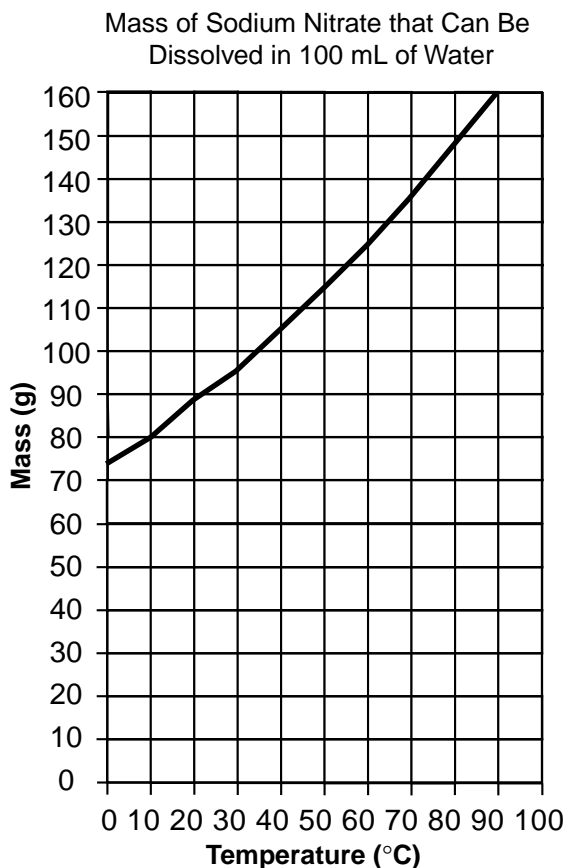


Name: _____

Date: _____

Use the graph below to answer questions 1 and 2.



- 1 According to these data, what is the approximate number of grams of sodium nitrate that can be dissolved at a temperature of 50°C?
- A 95 g
 - B 105 g
 - C 115 g
 - D 125 g

- 2 Based on the information in the graph, what is the approximate number of grams of sodium nitrate that can be dissolved at a temperature of 90°C?
- A 150 g
 - B 155 g
 - C 160 g
 - D 165 g
- 3 In chemistry lab, a student was instructed to find the density of a rectangular piece of aluminum. After careful measurement, he recorded a mass of 31.44 g and a volume of 11.7 cm³. Using the formula $\text{density} = \text{mass} \div \text{volume}$ and a calculator, his answer was 2.6871794 g/cm³. Which of these is the correct answer to report for the density of the aluminum?
- A 2.7 g/cm³
 - B 2.69 g/cm³
 - C 2.687 g/cm³
 - D 2.68 g/cm³

Name: _____ Date: _____

Use the table below to answer questions 4 and 5.

Boiling Point Data Collected by Student Groups				
	Group A	Group B	Group C	Group D
Trial 1	79°C	82°C	75°C	80°C
Trial 2	78°C	84.5°C	83°C	80.5°C
Trial 3	83.5°C	79°C	78.5°C	79.5°C
Average	80.2°C	81.8°C	78.8°C	80°C

- 4 The table shows the data obtained by four groups of students during a lab investigation designed to determine the boiling point of methanol. The accepted value for the boiling point of methanol is 78.5°C. Whose data was the most accurate?
- A Group A
B Group B
C Group C
D Group D
- 5 Whose data was the most precise?
- A Group A
B Group B
C Group C
D Group D
- 6 Sandra has a recipe for cookies that calls for 4 tablespoons of peanut oil. If she wants to triple the recipe, which conversion factor would be helpful?
- A $\frac{3 \text{ teaspoons}}{1 \text{ tablespoon}}$
B $\frac{3 \text{ tablespoons}}{2 \text{ teaspoons}}$
C $\frac{4 \text{ tablespoons}}{1/4 \text{ cup}}$
D $\frac{1/4 \text{ cup}}{4 \text{ tablespoons}}$
- 7 A student told the class that she takes 500 mg of vitamin C every day. What is this mass expressed in grams?
- A 0.05 g
B 0.5 g
C 5.0 g
D 500,000 g
- 8 The density of carbon dioxide gas is $1.8 \times 10^{-3} \text{ g/cm}^3$. This value can be expressed in ordinary notation as —
- A 0.0018 g/cm^3
B 0.018 g/cm^3
C 0.18 g/cm^3
D 1.800 g/cm^3

