

If 0.278g of argon dissolves in 1.5 l of water at 62 bar, what quantity of argon will dissolve at 78 bar

0.35 grams of Argon gas will dissolve at 78 bar pressure in 1.5 liters of water.

What is ideal gas equation?

Ideal gas equation for any gas at standard condition will written as:

$PV = nRT$, where

P = pressure

V = volume

n = no. of moles

R = universal gas constant

T = temperature

For this equation volume and temperature is constant, so the required equation will be:

$\frac{P_1}{P_2} = \frac{n_1}{n_2}$, where

P_1 = given pressure = 62 bar

n_1 = given mass of argon = 0.278g

P_2 = resultant pressure of argon = 78 bar

n_2 = to find?

On putting all these value on the above equation, we get

$$n = 0.278\text{g} \times (78 \text{ bar} / 62 \text{ bar}) = 0.35 \text{ g}$$

Hence, required mass of argon is 0.35g.

To know more about ideal gas equation, visit the below link:

brainly.com/question/12873752

When $P_1/P_2 = C_1/C_2$

and C is the molarity which = moles/volume

so, $P_1/P_2 = [(mass1/mw)/volume] / [(mass2/mw)/volume]$

$$P_1/P_2 = (mass1/mw)/1.5L / (mass2/mw)/1.5L$$

so, Mw and 1.5 L will cancel out:

$$P_1/P_2 = mass1 / mass2$$

$$mass2 = mass1 * (P_2 / P_1)$$

$$= 0.278\text{g} * (78 \text{ bar} / 62 \text{ bar})$$

$$= 0.35 \text{ g}$$

∴ the quantity of argon that will dissolve at 78 bar = 0.35 g

John took a call from a customer who wanted to purchase 1,000 shares of a company's stock, which just went public. What is John's profession? tax accountant

insurance sales agent

real estate agent

financial services sales agent

What is the density of lithium metal (in g/cm^3) if a cube measuring $0.82 \text{ cm} \times 1.45 \text{ cm} \times 1.25 \text{ cm}$ has a mass of 0.794 g ?

Kenny claims he can draw a trapezoid with three right angles

The Black Sea provided Russia access to the Mediterranean Sea. Where is the Black Sea? A. A B. B C. C D. D

According to "Five Stars for Literary Critics," what previous work influenced Shakespeare's Hamlet?

What is the rate of change of Gareth's distance from the bottom of the pool with respect to time, and what is his initial distance from the bottom? rate of change = 0 feet per minute, and distance = 0 foot rate of change = 12 feet per minute, and distance = 12 feet rate of change = 12 feet per minute, and distance = 0 foot rate of change = 0 feet per minute, and distance = 12 feet

Find the? mean, median, and mode of the? data, if possible. If any of these measures cannot be found or a measure does not represent the center of the? data, explain why. O A sample of seven admission test scores for a professional school are listed below:

- a. 9.8
- b. 9.9
- c. 10.6
- d. 9.8
- e. 11.1
- f. 10.1
- g. 10.4

1. What is the median? score?

2. Does the median represent the center of the? data?

- A. The median represents the center.
- B. The median does not represent the center because it is the largest data value.
- C. The median does not represent the center because it is the smallest data value.
- D. The median does not represent the center because it is not a data value.

3. What is the mode of the? scores?

4. Does? (Do) the? mode(s) represent the center of the? data?

- A. The? mode(s) represent(s) the center.
- B. The? mode(s) does? (do) not represent the center because it?(one) is the largest data value.
- C. The? mode(s) does? (do) not represent the center because it?(one) is the smallest data value.
- D. The? mode(s) can't represent the center because it? (they) is?(are) not a data value.

Describe the factors the impact how rocks form the rock cycle?

How do you solve the linear equation $8x=32y$

How did the supreme court's decision harm the efforts of reconstruction??

How do I write an expository essay , when I have tree different stories , but they are related to an extent . What structure / points I have to cover ?

This is level 4/5 in English Distance Education Learning .

Thank you in advance for your help.

A friend uses the distributive property to simplify $4(2b-5)$ and gets $8b-5$ as the result. Describe and correct the error.

When asked to factor the trinomial, a student gives the answer $(x - 7)(x + 7)$. Which of the following statements is true?

A long distance runner does a first lap around a track in exactly 50 seconds. As she tires, each subsequent lap takes 20% longer than the previous one. How long does she take to run 3 laps?

Wally purchased a fan that was on sale for $\frac{4}{9}$ of the original price. If the original price is 180\$, what was the price that Wally paid?

What is the value of n ?

$$6.5(n^5) = 18.2$$

A garden table and a bench cost \$1002 combined. The table costs \$52 more than the bench. What is the cost of the bench?

The price of a television set on sale is \$360. This is two thirds of the regular price. Find the regular price. Show work please and answer ASAP ??

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