

Grams to Moles Conversions Worksheet



Answer the following questions.

- 1) How many moles of Li are present in 15 grams? (Molar mass of Li = 6.94 g/mol)
- 2) How many moles of Ar are present in 22 grams? (Molar mass of Ar = 40 g/mol)
- 3) How many moles of P are present in 2.3 grams? (Molar mass of P = 30 g/mol)
- 4) How many moles of Ca are present in 9.8 grams? (Molar mass of Ca = 40 g/mol)
- 5) How many moles of $\text{Al}(\text{OH})_3$ are present in 98.3 grams? (Molar mass = 78 g/mol)
- 6) How many moles of $\text{Cu}(\text{OH})_2$ are present in 68 grams? (Molar mass = 97.5 g/mol)
- 7) How many moles of NH_3 are present in 1.2×10^3 grams? (Molar mass = 17 g/mol)
- 8) How many moles of S are present in 24 grams? (Molar mass = 32.07 g/mol)
- 9) How many moles of Mg are present in 39 grams? (Molar mass = 24.3 g/mol)
- 10) How many moles of As are present in 17.8×10^3 grams? (Molar mass = 74.9 g/mol)

Grams to Moles Conversions Worksheet

Answers

1) How many moles of Li are present in 15 grams? (Molar mass of Li = 6.94 g/mol)

$$\text{Number of moles} = 15/6.94 \text{ moles} = 2.2 \text{ moles}$$

2) How many moles of Ar are present in 22 grams? (Molar mass of Ar = 40 g/mol)

$$\text{Number of moles} = 22/40 \text{ moles} = 0.55 \text{ moles}$$

3) How many moles of P are present in 2.3 grams? (Molar mass of P = 30 g/mol)

$$\text{Number of moles} = 2.3/30 \text{ moles} = 0.076 \text{ moles}$$

4) How many moles of Ca are present in 9.8 grams? (Molar mass of Ca = 40 g/mol)

$$\text{Number of moles} = 9.8/40 \text{ moles} = 0.245 \text{ moles}$$

5) How many moles of $\text{Al}(\text{OH})_3$ are present in 98.3 grams? (Molar mass = 78 g/mol)

$$\text{Number of moles} = 98.3/78 \text{ moles} = 1.26 \text{ moles}$$

6) How many moles of $\text{Cu}(\text{OH})_2$ are present in 68 grams? (Molar mass = 97.5 g/mol)

$$\text{Number of moles} = 68/97.5 \text{ moles} = 0.697 \text{ moles}$$

7) How many moles of NH_3 are present in 1.2×10^3 grams? (Molar mass = 17 g/mol)

$$\text{Number of moles} = (1.2 \times 10^3)/17 = 70.5 \text{ moles}$$

8) How many moles of S are present in 24 grams? (Molar mass = 32.07 g/mol)

$$\text{Number of moles} = 24/32.07 = 0.75 \text{ moles}$$

9) How many moles of Mg are present in 39 grams? (Molar mass = 24.3 g/mol)

$$\text{Number of moles} = 39/24.3 = 1.6 \text{ moles}$$

10) How many moles of As are present in 17.8×10^3 grams? (Molar mass = 74.9 g/mol)

$$\text{Number of moles} = (17.8 \times 10^3)/74.9 = 237.6 \text{ moles}$$