Name : _____ Date : _____

Mass Mole Conversion Worksheet

Answer the following questions.

① How many moles are present in 28 grams of CO_2?

② How many moles are present in 79.85 grams of Fe_2O_3?

③ How many moles are present in 8.045 grams of H_2CO_3?

④ How many moles are present in 27.2 grams of H_2O?

⑤ How many moles are present in 72.9 grams of HCl?

⑥ How many moles are present in 140 grams of NaOH?

⑦ How many moles are present in 45.7 grams of $CaCO_3$?

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Mass Mole Conversion Worksheet

Answers

① How many moles are present in 28 grams of CO_2?

Molar mass of CO_2 = 44.01 g/mol
Number of moles = 28/44.01 = 0.636 moles

② How many moles are present in 79.85 grams of Fe_2O_3?

Molar mass of Fe_2O_3 = 159.7 g/mol
Number of moles = 79.85/159.7 = 0.5 moles

③ How many moles are present in 8.045 grams of H_2CO_3?

Molar mass of H_2CO_3 = 62.03 g/mol
Number of moles = 8.045/62.03 = 0.129 moles

④ How many moles are present in 27.2 grams of H_2O?

Molar mass of H_2O = 18 g/mol
Number of moles = 27.2/18 = 1.51 moles

⑤ How many moles are present in 72.9 grams of HCl?

Molar mass of HCl = 36.5 g/mol
Number of moles = 36.5/72.9 = 0.5 moles

⑥ How many moles are present in 140 grams of NaOH?

Molar mass of NaOH = 40 g/mol
Number of moles = 140/40 = 3.5 moles

⑦ How many moles are present in 45.7 grams of $CaCO_3$?

Molar mass of $CaCO_3$ = 100 g/mol
Number of moles = 45.7/100 = 0.458 moles