



Name _____ Class _____ Date _____

1 What is the **molarity** of a solution containing 20 grams of NaOH in 500 milliliters of solution?

- A 1 M
- B 2 M
- C 0.04 M
- D 0.5 M



2 A student **neutralized** 16.4 milliliters of HCl by adding 12.7 milliliters of 0.620 M KOH. What was the **molarity** of the HCl acid?

- A 0.168 M
- B 0.480 M
- C 0.620 M
- D 0.801 M



3 What is the **percent composition** by mass of **aluminum** in $\text{Al}_2(\text{SO}_4)_3$ (gram-formula mass = 342 grams/mole)?

- A 7.89%
- B 15.8%
- C 20.8%

4 A sample of a compound contains 65.4 grams of zinc, 12.0 grams of carbon, and 48.0 grams of oxygen. What is the **mole ratio** of zinc to carbon to oxygen in this compound?

- A 1:1:2
- C 1:4:6

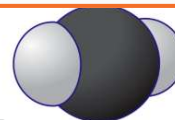


PREVIEW

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7 **C** mass of a solution
D volume of a solvent

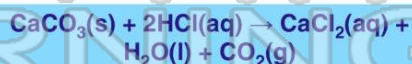
- A CH_2
- B C_4H_6
- C C_4H_8
- D C_8H_4



9 What is the **mass** of 4.76 moles of Na_3PO_4 (gram-formula mass = 164 grams/mole)?

- A 758 g
- B 781 g
- C 871 g
- D 178 g

10 Given the balanced equation:



What is the total number of **moles of CO_2** formed when 20 moles of HCl is completely consumed?

- A 5.0 mol
- B 10 mol
- C 20 mol
- D 40 mol





ANSWER KEY

What is the **molarity** of a solution containing 20 grams of NaOH in 500 milliliters of solution?

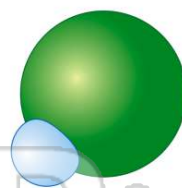
- A 1 M
- B 2 M
- C 0.04 M
- D 0.5 M



(a)

A student **neutralized** 16.4 milliliters of HCl by adding 12.7 milliliters of 0.620 M KOH. What was the **molarity** of the HCl acid?

- A 0.168 M
- B 0.480 M
- C 0.620 M
- D 0.801 M



(b)

What is the **percent composition** by mass of **aluminum** in $\text{Al}_2(\text{SO}_4)_3$ (gram-formula mass = 342 grams/mole)?

- A 7.89%
- B 15.8%
- C 20.8%
- D 36.0%

(b)

A sample of a compound contains 65.4 grams of zinc, 12.0 grams of carbon, and 48.0 grams of oxygen. What is the **mole ratio** of zinc to carbon to oxygen in this compound?

- A 1:1:2
- B 1:1:3
- C 1:4:6
- D 5:1:4

(b)



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... volume of a solvent

- B C_4H_6
- C C_4H_8
- D C_8H_4

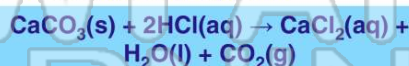


What is the **mass** of 4.76 moles of Na_3PO_4 (gram-formula mass = 164 grams/mole)?

- A 758 g
- B 781 g
- C 871 g
- D 178 g

(b)

Given the balanced equation:



What is the total number of **moles of CO_2** formed when 20 moles of HCl is completely consumed?

- A 5.0 mol
- B 10 mol
- C 20 mol
- D 40 mol



(b)