PRINCE EDWARD ISLAND CHEMISTRY 11 · UNIT B

# Stoichiometry — Practice Test

**Prince Edward Island Chemistry 11 • 25 questions**

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **How many moles are in 36 grams of water, if the molar mass of water is 18 grams per mole**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **In the reaction $2H_2$ plus $O_2$ gives $2H_2O$, 2 moles of hydrogen react completely. How many moles of water are produced**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **In the reaction $2H_2$ plus $O_2$ gives $2H_2O$, 2 moles of water are produced. How many moles of oxygen were used**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **How many moles are in 88 grams of carbon dioxide, if the molar mass of carbon dioxide is 44 grams per mole**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A balanced chemical equation has the same number of each type of atom on**

A both sides

B the left only

C the right only

D neither side

Understand It with Pulse | Flag a mistake

**6** **A chemical equation must be balanced because atoms are**

- **A** neither created nor destroyed in a reaction
- **B** created in reactions
- **C** destroyed in reactions
- **D** converted to energy always

Understand It with Pulse | Flag a mistake

**7** **Avogadro's number is approximately**

- **A** $6.02 \times 10^{22}$
- **B** $6.02 \times 10^{23}$
- **C** $1.00 \times 10^{23}$
- **D** $6.02 \times 10^{24}$

Understand It with Pulse | Flag a mistake

8 **Coefficients in a balanced equation show the**

A mass ratio only

B mole ratio of reactants and products

C volume ratio only

D temperature

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9 **In the reaction $N_2$ plus $3H_2$ gives $2NH_3$, 6 moles of hydrogen produce how many moles of ammonia**

A 2

B 3

C 6

D 4

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10 **In the reaction $N_2$ plus $3H_2$ gives $2NH_3$, the mole ratio of hydrogen to ammonia is**

- A 1 to 2
- B 2 to 3
- C 3 to 2
- D 3 to 1

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11 **One mole of a substance contains the same number of particles as one mole of**

- A any other substance
- B water only
- C carbon only
- D one gram of it

Understand It with Pulse | Flag a mistake

12 **One mole of hydrogen gas at standard conditions occupies about**

A 1 litre

B 10 litres

C 22.4 litres

D 44 litres

Understand It with Pulse | Flag a mistake

13 **Percent yield equals actual yield divided by theoretical yield, times**

A 100

B 10

C 1000

D 1

Understand It with Pulse | Flag a mistake

**14** **Stoichiometry is the study of quantitative relationships in**

- **A** nuclear reactions only
- **B** physical changes only
- **C** solutions only
- **D** chemical reactions

Understand It with Pulse | Flag a mistake

**15** **The empirical formula of glucose is**

- **A** $C_6H_{12}O_6$
- **B** $C_2H_4O_2$
- **C** CHO
- **D** $CH_2O$

Understand It with Pulse | Flag a mistake

16 **The empirical formula shows the**

A actual number of atoms

B simplest whole number ratio of atoms

C molar mass

D structural arrangement

Understand It with Pulse | Flag a mistake

17 **The limiting reactant is the reactant that is**

A left over

B in excess

C used up first

D a catalyst

Understand It with Pulse | Flag a mistake

18 **The molar mass of a substance is its mass per**

A gram

B mole

C litre

D particle

Understand It with Pulse | Flag a mistake

19 **How many moles are in 72 grams of water, if the molar mass of water is 18 grams per mole**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **In the reaction $2H_2$ plus $O_2$ gives $2H_2O$, 4 moles of hydrogen react completely. How many moles of water are produced**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **In the reaction $2H_2$ plus $O_2$ gives $2H_2O$, 4 moles of water are produced. How many moles of oxygen were used**

ANSWER

Understand It with Pulse | Flag a mistake

22 **How many moles are in 132 grams of carbon dioxide, if the molar mass of carbon dioxide is 44 grams per mole**

ANSWER

Understand It with Pulse | Flag a mistake

23 **How many moles are in 18 grams of water, if the molar mass of water is 18 grams per mole**

ANSWER

Understand It with Pulse | Flag a mistake

24 **In the reaction $2H_2$ plus $O_2$ gives $2H_2O$, 6 moles of hydrogen react completely. How many moles of water are produced**

ANSWER

Understand It with Pulse | Flag a mistake

25

**In the reaction $2H_2$ plus $O_2$ gives $2H_2O$, 6 moles of water are produced. How many moles of oxygen were used**

ANSWER

Understand It with Pulse | Flag a mistake

# ANSWER KEY

| | | | | | |
|---|---|---|---|---|---|
| **1.** | 2.00 | **10.** | C | **19.** | 4.00 |
| **2.** | 2 | **11.** | A | **20.** | 4 |
| **3.** | 1 | **12.** | C | **21.** | 2 |
| **4.** | 2.00 | **13.** | A | **22.** | 3.00 |
| **5.** | A | **14.** | D | **23.** | 1.00 |
| **6.** | A | **15.** | D | **24.** | 6 |
| **7.** | B | **16.** | B | **25.** | 3 |
| **8.** | B | **17.** | C | | |
| **9.** | D | **18.** | B | | |

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