Quantities in Chemical Reactions — Practice Test

Ontario Chemistry, Grade 11, University Preparation (SCH3U) • 10 questions

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1 **A reaction has an actual yield of 45 grams and a theoretical yield of 90 grams. What is the percent yield?**

ANSWER _____

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2 **An empirical formula gives**

A. the exact number of atoms in a molecule

B. the simplest whole number ratio of atoms in a compound

C. the structural arrangement only

D. the mass of a molecule

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3 **The empirical formula of a compound with equal numbers of carbon and hydrogen atoms could be**

- **A** C_2H_4
- **B** C_2H_6
- **C** CH
- **D** CH_4

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4 **At standard temperature and pressure, one mole of an ideal gas occupies about**

- **A** 1 litre
- **B** 10 litres
- **C** 100 litres
- **D** 22.4 litres

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5 **At standard temperature and pressure, what volume in litres does 1 moles of an ideal gas occupy, using 22.4 litres per mole?**

ANSWER _____

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6 **At standard temperature and pressure, what volume in litres does 2 moles of an ideal gas occupy, using 22.4 litres per mole?**

ANSWER _____

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7 **At standard temperature and pressure, what volume in litres does 0.5 moles of an ideal gas occupy, using 22.4 litres per mole?**

ANSWER _____

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8 **Avogadro number relates moles to**

A number of particles

B mass only

C volume only

D temperature

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9 **Which amount contains the most particles?**

A 1 mole of carbon

B 2 moles of hydrogen gas

C 0.5 moles of oxygen gas

D 1 mole of water

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10 **In a reaction, 1 mole of reactant produces 2 moles of product. How many moles of product form from 2 moles of reactant?**

ANSWER

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ANSWER KEY

1.	50	**5.**	22.4	**9.**	B
2.	B	**6.**	44.8	**10.**	4
3.	C	**7.**	11.2		
4.	D	**8.**	A		

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