ENGLAND GCSE COMBINED SCIENCE AQA TRILOGY FOUNDATION · UNIT 13 · 25 QUESTIONS

The Rate and Extent of Chemical Change — Practice Test

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 so it can be fixed.

1 **A thermometer measures temperature in degrees Celsius. What is the freezing point of water on this scale?**

A 0

B 10

C 100

D 32

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2 **A yellow school bus is full of children. What is its mass like?**

A smaller than when empty

B zero

C the same as when empty

D larger than when empty

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3 **A kite rises higher. What happens to the wind speed usually?**

A it stays the same

B it decreases

C it increases

D it becomes zero

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4 **A passenger train travels at a steady speed. What is its acceleration?**

- **A** 0 m/s²
- **B** 1 m/s²
- **C** 9.8 m/s²
- **D** 10 m/s²

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5 **A wristwatch is used to time a race. What is speed calculated from?**

- **A** time only, not distance
- **B** mass and time together
- **C** distance only, not time
- **D** distance and time

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6 **A cup of coffee is hot. How is energy transferred to the air?**

- A by evaporation only, from the top
- B by condensation on the cold cup
- C by radiation only, from the surface
- D by conduction and convection

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7 **In a second experiment, 30 cm cubed of gas are made in 30 seconds. What is the rate of the reaction?**

- A 2.5 cm^3/s
- B 0.5 cm^3/s
- C 1 cm^3/s
- D 1.5 cm^3/s

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8 **A reaction makes 1 moles of gas. What volume does the gas occupy at room temperature and pressure?**

- A 12 dm^3
- B 48 dm^3
- C 24 dm^3
- D 36 dm^3

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9 **A reaction produces 20 cm cubed of gas in 10 seconds. What is the mean rate of reaction?**

- A 4 cm^3/s
- B 2.5 cm^3/s
- C 1.5 cm^3/s
- D 2 cm^3/s

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10 **A reaction should make 100 g of product but only makes 80 g. What is the percentage yield?**

- A 70%
- B 90%
- C 160%
- D 80%

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11 **In an experiment, 60 cubic centimetres of gas are made in 20 seconds. What is the rate of the reaction?**

- A 1200 cm^3/s
- B 3 cm^3/s
- C 1.5 cm^3/s
- D 6 cm^3/s

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12 **A solution has a concentration of 2 mol per cubic decimetre. How many moles are in 2 cubic decimetres of the solution?**

A 5 mol

B 3 mol

C 8 mol

D 4 mol

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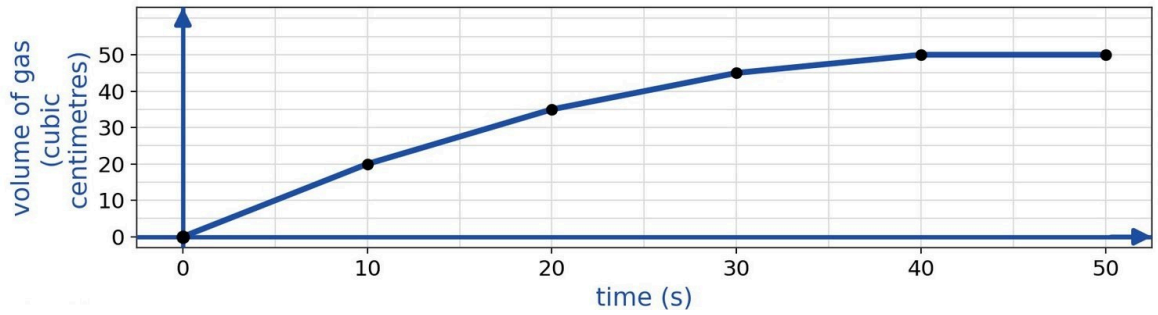
13 **The graph shows the volume of gas made in a reaction. After how many seconds does the reaction finish?**



A 20

B 40

C 30

D 50

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14 **In a second experiment, 30 cm cubed of gas are made in 15 seconds. What is the rate of the reaction?**

- A 2 cm^3/s
- B 3.5 cm^3/s
- C 2.5 cm^3/s
- D 1.5 cm^3/s

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15 **A reaction produces 40 cm cubed of gas in 10 seconds. What is the mean rate of reaction?**

- A 8 cm^3/s
- B 3.5 cm^3/s
- C 4 cm^3/s
- D 4.5 cm^3/s

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16 **A reaction should make 200 g of product but only makes 100 g. What is the percentage yield?**

- A 60%
- B 40%
- C 100%
- D 50%

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17 **In an experiment, 60 cubic centimetres of gas are made in 30 seconds. What is the rate of the reaction?**

- A 1800 cm^3/s
- B 4 cm^3/s
- C 1 cm^3/s
- D 2 cm^3/s

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18 **A solution has a concentration of 2 mol per cubic decimetre. How many moles are in 3 cubic decimetres of the solution?**

A 6 mol

B 5 mol

C 12 mol

D 7 mol

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19 **In a second experiment, 90 cm cubed of gas are made in 15 seconds. What is the rate of the reaction?**

A 6 cm^3/s

B 5.5 cm^3/s

C 7.5 cm^3/s

D 6.5 cm^3/s

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20 **A reaction makes 3 moles of gas. What volume does the gas occupy at room temperature and pressure?**

- **A** 72 dm^3
- **B** 144 dm^3
- **C** 84 dm^3
- **D** 60 dm^3

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21 **A reaction should make 200 g of product but only makes 180 g. What is the percentage yield?**

- **A** 100%
- **B** 80%
- **C** 180%
- **D** 90%

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22 **In an experiment, 40 cubic centimetres of gas are made in 20 seconds. What is the rate of the reaction?**

- **A** 4 cm^3/s
- **B** 2 cm^3/s
- **C** 800 cm^3/s
- **D** 1 cm^3/s

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23 **A solution has a concentration of 1 mol per cubic decimetre. How many moles are in 2 cubic decimetres of the solution?**

- **A** 1 mol
- **B** 4 mol
- **C** 3 mol
- **D** 2 mol

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24 **What happens to equilibrium if the temperature rises?**

A it stays in the same place

B the reaction stops

C it moves to give out heat

D it moves to take in heat

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25 **Which factor increases the rate of a reaction?**

A larger pieces

B a higher temperature

C a lower temperature

D a lower concentration

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ANSWER KEY

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

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