



National Chemistry Quizzes

**Chemical changes
and structure**

Quick Quiz 1 - chemical reactions

1. What **always** happens in a chemical reaction?
 - A the chemicals change colour
 - B a gas is made
 - C ice melts
 - D a new substance is made

2. Which one of the following is **not** a chemical reaction?
 - A a rotting egg
 - B water boiling and turning into steam
 - C wood burning
 - D coal burning

3. Which one of the following is **not** a chemical reaction?
 - A a car going rusty
 - B an egg frying
 - C an ice lolly melting
 - D bread turning into toast

4. Which is a chemical reaction?
 - A milk going off
 - B plastic melting
 - C glass breaking
 - D a puddle evaporating

5. Which is a chemical reaction?

- A glass breaking
- B ice melting
- C a rotting apple
- D chopping wood

Look at the list below for questions 6-10

- A mixing salt and water
- B toast burning
- C hydrogen and oxygen joining to make water
- D chopping wood
- E hair growing
- F butter melting
- G methane burning
- H petrol burning

- 6. Which letter is a chemical reaction that happens in a natural gas boiler for central heating?
- 7. Which letter shows a chemical reaction that changes bread into new substances?
- 8. Which letter is a chemical reaction involved in transport?
- 9. Which letter is a chemical reaction that turns food chemicals into new body material?
- 10. Which letter is a chemical reaction when the burning splint pops in the gas tests?

Quick Quiz 2 - reactions

1. What is the special name given to a solid made when two solutions are mixed?
A ice
B iron
C sulphate
D precipitate
2. Which of the following is not a chemical reaction
A hair growing
B bread toasting
C wood burning
D salt dissolving
3. When cobalt chloride solution is added to potassium carbonate solution, the mixture is cloudy. What type of reaction has taken place?
A combustion
B precipitation
C rusting
D neutralisation
4. An example of chemical reaction is
A melting ice
B chopping wood
C heating a pan of water until it boils
D a rotting egg

Use the answers below for the rest of the questions

A endothermic

B exothermic

5. What type of chemical reaction gives out energy (usually heat/light)
6. What type of chemical reaction takes in energy (usually heat/light)
7. Burning is an example of what type of reaction?
8. Photosynthesis is an example of what type of reaction?
9. Light energy can be used to cause a chemical reaction on photographic paper. What type of reaction is this?
10. When sodium hydroxide is added to hydrochloric acid the temperature of the mixture increases. What type of reaction is this?

Quick Quiz 3 - the speed of reactions

1. What does °C stand for?

- A degrees celsius
- B degrees chemical
- C degrees cola
- D degrees carbon

When zinc is added to acid bubbles of hydrogen gas are produced. 5g of zinc was added to acid at four different temperatures. Use the answers below for questions 2 and 3.

- A 25°C
- B 10°C
- C 50°C
- D they would all be the same

2. Which temperature would produce gas the fastest?

3. Which temperature would produce the most gas?

4. Which reaction is the fastest?

- A a firework exploding
- B paper burning
- C fossil fuels forming
- D toast being made

5. What is the highest concentration?

- A 0.1 moles per litre
- B 1 moles per litre
- C 5 moles per litre

D 0.05 moles per litre

6. Which acid below would make hydrogen the slowest when zinc was added.

A 0.1 moles per litre

B 1 moles per litre

C 5 moles per litre

D 0.05 moles per litre

7. Which reaction would be the fastest?

A burning a tree trunk

B burning wooden splints

C burning lumps of coal

D burning wood shavings

8. Chemists sometimes use special chemicals that speed up reactions. What are these special chemicals called?

A convertors

B cat litter

C catalysts

D precipitates

9. Sarah used 10g of a catalyst in an experiment. How much of the catalyst would have been used up?

A all of it

B half of it

C 3g

D none of it

10. Which of the following statements is true?

A catalysts are used in catalytic convertors in car tyres to prevent punctures.

B catalysts are used in catalytic convertors in car exhausts to prevent rusting.

C catalysts are used in catalytic convertors in car exhausts to increase the speed of the car by adding more petrol.

D catalysts are used in catalytic convertors in car exhausts to prevent pollution by turning harmful gases into safe gases.

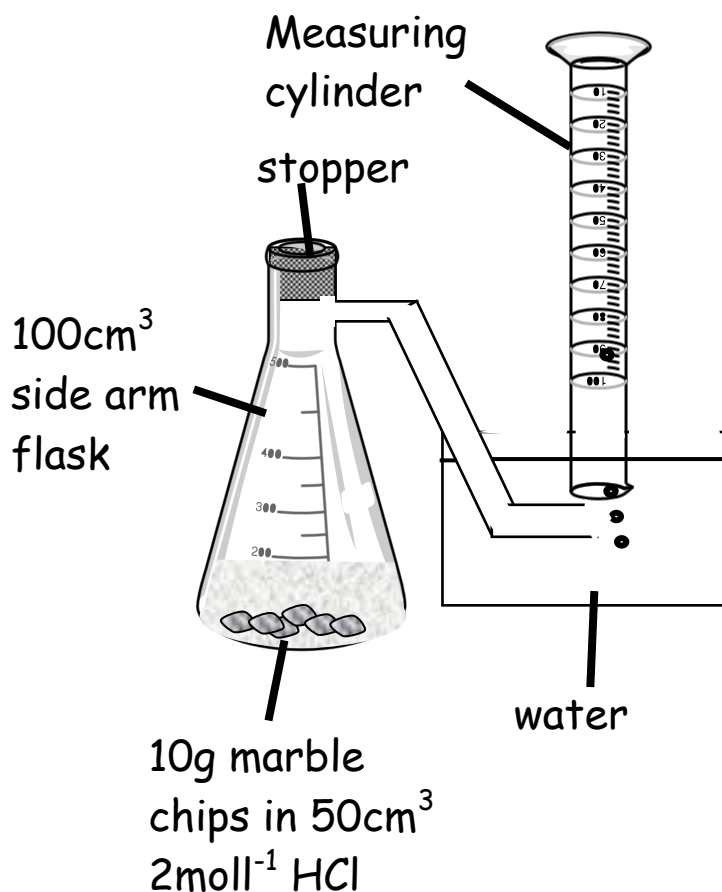
Quick Quiz 4 - the average rate of a reaction

1. What apparatus is most accurate for measuring volume

- A test tube
- B boiling tube
- C beaker
- D measuring cylinder

2. What is the main problem with using this apparatus for measuring the volume of gas made in a reaction?

- A it is awkward to set up
- B some of the gas could dissolve
- C it is hard to measure the volume upside down
- D marble does not react with acid

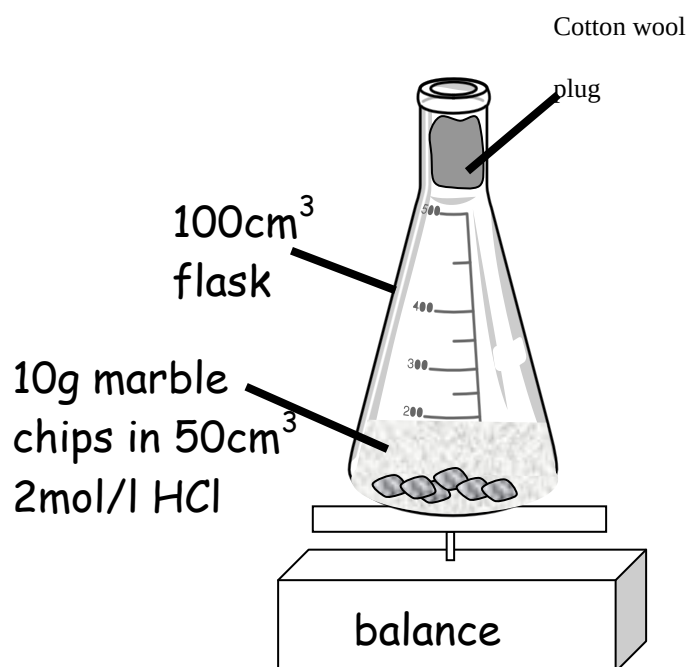


3. This experiment was carried out with 10g of powder instead of chips and all of the powder was used up in both experiments. What will happen with the powder experiment?

- A the volume of gas will be the same and made faster
- B the volume of gas will be the same and made slower
- C the volume of gas will be less and it will be made faster
- D the volume of gas will be more and it will be made faster

4. This experiment was carried out at a colder temperature.
What will happen?
- A the volume of gas will be the same and made faster
 - B the volume of gas will be the same and made slower
 - C the volume of gas will be less and it will be made faster
 - D the volume of gas will be more and it will be made faster
5. Which acid below would make the gas the slowest?
- A 0.1 moles per litre
 - B 1 moles per litre
 - C 5 moles per litre
 - D 0.05 moles per litre

6. What happens to the balance reading in this experiment?
- A it stays the same because a gas is made
 - B it increases because a gas is made
 - C it decreases because a gas is made



7. Why is the cotton wool needed in this experiment.
- A to keep the gas in the flask
 - B to stop liquid spitting out
 - C to let the gas out

8. Would it be safe to use a stopper instead of cotton wool this experiment?

A yes

B no

9. What hazard symbol would you expect to see on a bottle of acid?



A



B

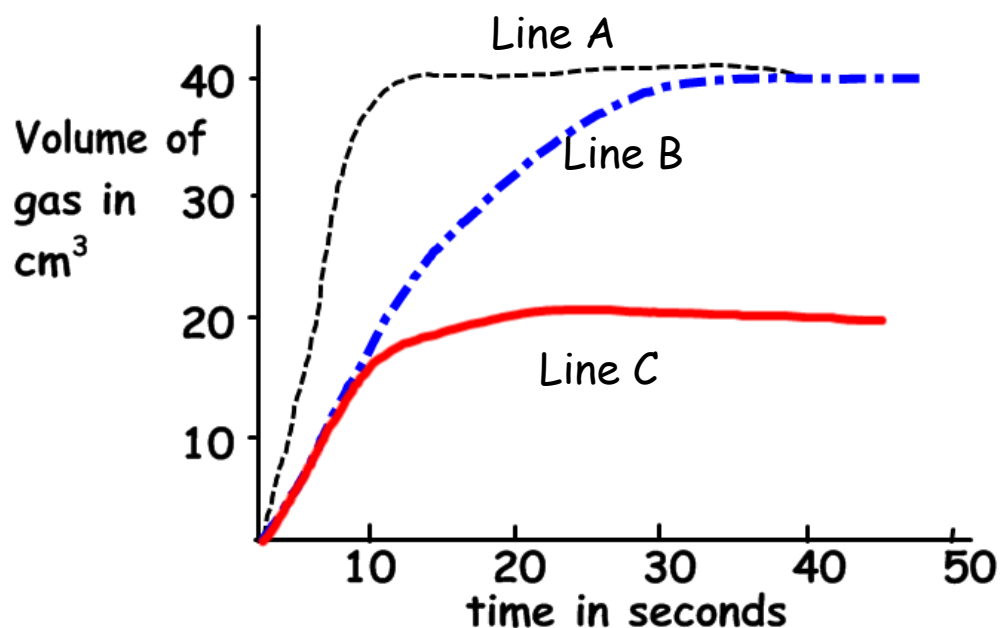


C



D

10. Which of the following statements is true about this graph?



- A the steeper the slope the slower the reaction.
- B the steeper the slope the faster the reaction.
- C reaction C is the fastest.
- D reaction A is the slowest

Quick Quiz 5 - the average rate of a reaction N5

1. How do we calculate the average rate of a reaction

A change/time

B time/change

C $1/t$

2. The volume of gas at 10 s was 20cm^3 and at 30 seconds was 44cm^3 . The average rate is

A $20/24$

B $24/20$

C $10/30$

D $20/44$

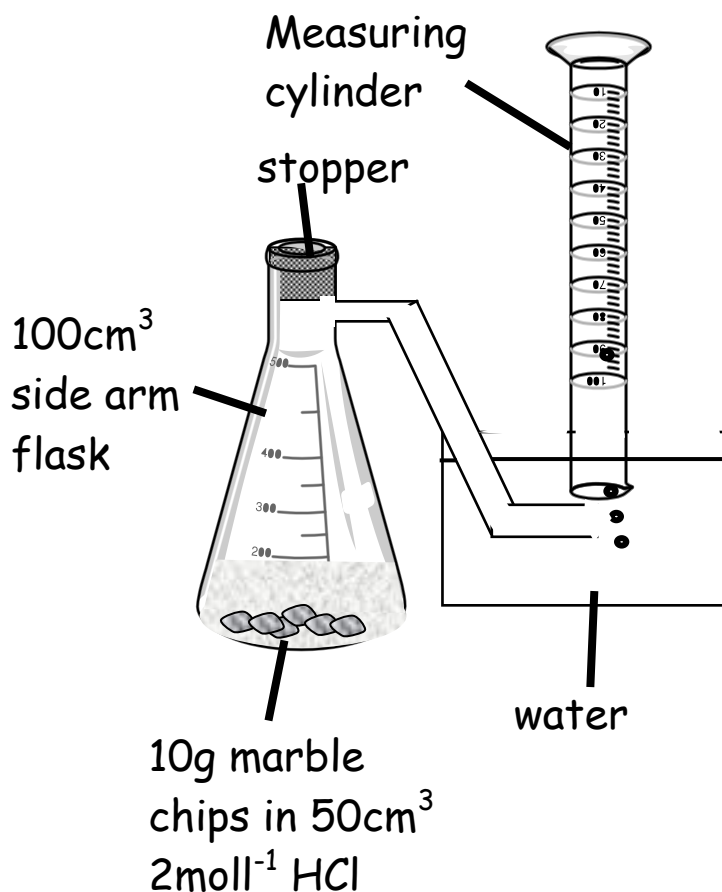
3. The volume of gas at 5 s was 20cm^3 and at 35 seconds was 52cm^3 . The average rate is

A $52-20/35-5$

B $20-5/52-35$

C $35-20/52-5$

D $35-5/52-20$



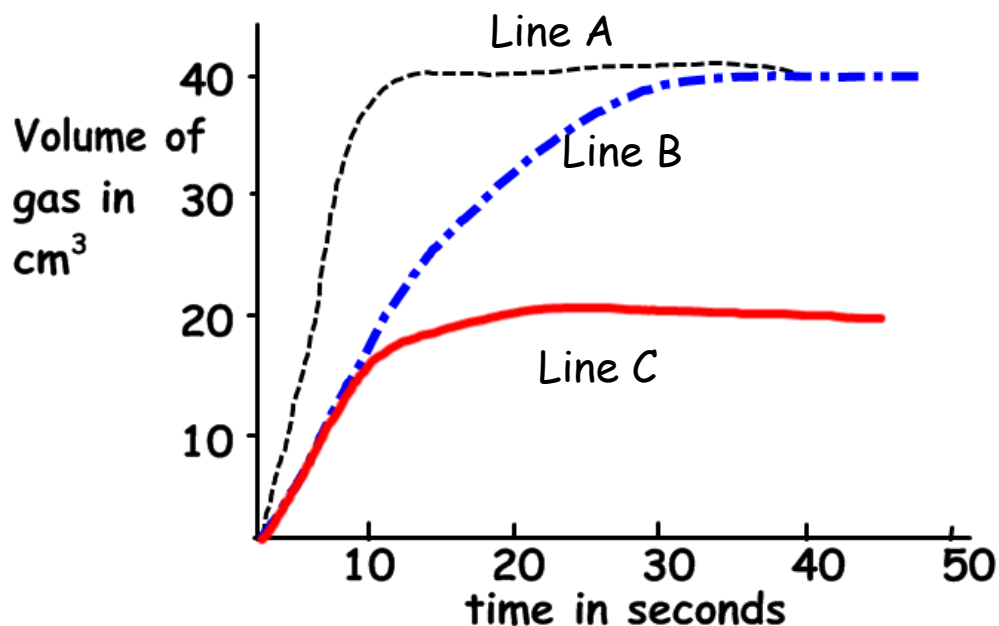
4. This experiment was carried out at a colder temperature.
What will happen to the average rate?
- A the rate will decrease and more gas will be made
 - B the rate will increase and more gas will be made
 - C the rate will decrease and the same volume of gas will be made
 - D the rate will increase and the same volume of gas will be made
5. This experiment was carried out with 10g of larger pieces of marble but the marble was still all used up. What will happen to the average rate?
- A the rate will decrease and more gas will be made
 - B the rate will increase and more gas will be made
 - C the rate will decrease and the same volume of gas will be made
 - D the rate will increase and the same volume of gas will be made
6. The average rate for the experiment with 2 mol/l acid was 0.02.
What could the rate be with 1mol/l acid?
- A 0.01
 - B 0.02
 - C 0.03
 - D 0.04
7. The average rate for the experiment with 2 mol/l acid was 0.03.
What could the rate be with 4mol/l acid?
- A 0.01

- B 0.02
- C 0.03
- D 0.04

8. The average rate for the experiment at room temperature was 0.0015. What could the rate be at 30°C?

- A 0.0005
- B 0.0010
- C 0.0015
- D 0.0020

9. Which of the following statements is true about this graph?



- A reaction A is slower than B
- B reaction A is the same average rate as B
- C reaction C has a higher average rate than B
- D reaction B is slower than A

10. The average rate for the experiment with 10 cm^3 of 2 mol/l acid was 0.03 . What could the rate be with 25 cm^3 of 2 mol/l acid?

- A 0.01
- B 0.02
- C 0.03
- D 0.04

Quick Quiz 6 - Elements 1

1. Where would you find a list of the names of all of the elements?
 - A a dinner table
 - B a periodic table
 - C a coffee table
 - D a bird table

2. Roughly how many elements are there?
 - A about 100
 - B about 1000
 - C about one million
 - D about 500

3. Who did most work to put the periodic table together?
 - A Albert Einstein
 - B Dmitri Mendeleev
 - C Isaac Newton
 - D Brian Cox

4. Which one is an element?
 - A steel
 - B tin
 - C brass
 - D bronze

5. Which one is not an element?

- A gold
- B water
- C aluminium
- D sulphur

Use the list below for the rest of the quiz

- A gallium
- B sulphur
- C oxygen
- D helium
- E chlorine

- 6. Which element is in row 3, column 6?
- 7. Which element is in row 4, column 3?
- 8. Which element is in row 3, column 7?
- 9. Which element is in row 1, column 0?
- 10. Which element is in row 2, column 6?

Quick Quiz 7

Elements symbols and discovery

Use the list below for your answers.

- A gold
- B bromine
- C carbon
- D oxygen
- E aluminium
- F fluorine
- G potassium
- H sodium
- I einsteinium
- J none of the above

1. Which element has the symbol Na?
2. Which element has the symbol o?
3. Which element was discovered in 1774?
4. Which element was discovered in 1825?
5. Which element has the symbol Au?
6. Which element has the symbol K?
7. Which element has the symbol Cl?
8. Which element has the symbol NA?
9. Which element was discovered in 1823?
10. Which element was discovered in 1952?

Quick Quiz 8
Elements classification

Use the answers below for questions 1 to 10

- A reactive metals
- B reactive non-metals
- C unreactive non-metals
- D none of the above

1. The elements in Group 1 of the periodic table are...
2. The elements in Group 0 of the periodic table are...
3. The elements in Group 7 of the periodic table are...
4. The elements in Group 4 of the periodic table are...
5. Sodium is in the family of...
6. Bromine is in the family of...
7. Xenon is in the family of...
8. Caesium is in the family of...
9. Chlorine is in the family of...
10. Helium is in the family of...

Quick Quiz 9
Elements classification 2

Use the answers below for questions 1 to 10

- A reactive metals
- B reactive non-metals
- C unreactive non-metals
- D none of the above

1. The element with symbol K is in the family of...
2. The element with symbol Rb is in the family of...
3. The element with symbol Rn is in the family of...
4. The element with symbol At is in the family of...
5. The element with symbol He is in the family of...
6. The element with symbol Fr is in the family of...
7. The element with symbol F is in the family of...
8. The element with symbol Ne is in the family of...
9. The element with symbol Li is in the family of...
10. The element with symbol Cl is in the family of...

Quick Quiz 10 (N5)
Elements classification N5

Use the answers below for questions 1 to 10

- A alkali metals
- B halogens
- C noble gases
- D none of the above

1. The elements in Group 1 of the periodic table are...
2. The elements in Group 0 of the periodic table are...
3. The elements in Group 7 of the periodic table are...
4. The elements in Group 4 of the periodic table are...
5. Sodium is in the family of...
6. Bromine is in the family of...
7. Xenon is in the family of...
8. Caesium is in the family of...
9. Chlorine is in the family of...
10. Helium is in the family of...

Quick Quiz 11 (N5)
Elements classification 2 N5

Use the answers below for questions 1 to 10

- A alkali metals
- B halogens
- C noble gases
- D none of the above

1. The element with symbol K is in the family of...
2. The element with symbol Rb is in the family of...
3. The element with symbol Rn is in the family of...
4. The element with symbol At is in the family of...
5. The element with symbol He is in the family of...
6. The element with symbol Fr is in the family of...
7. The element with symbol F is in the family of...
8. The element with symbol Ne is in the family of...
9. The element with symbol Li is in the family of...
10. The element with symbol Cl is in the family of...

Quick Quiz 12
Elements classification 3

1. Which element will be found in row 3, column 2?
A beryllium
B magnesium
C aluminium
D sodium

2. Which of the following is a gas at room temperature?
A bromine
B sulphur
C chlorine
D iodine

3. Which of the following is the symbol for a non-metal element?
A Ge
B Se
C Fe
D Po

4. Which symbols show elements that are liquid at room temperature?
A Hg and Cl
B Br and Hg
C Be and Hg
D Si and Br

5. The element in Group 7 of the periodic table are
- A reactive metals
 - B reactive non-metals
 - C unreactive gases
6. Which list contains only extremely unreactive elements?
- A Xe, Na, F
 - B He, Ar, Ne
 - C K, Cl, Br
 - D Ar, Kr, Cs

Use the answers below for questions 7 and 8

- A 11
- B 7
- C 2
- D 10

7. How many elements are gases at room temperature?
8. How many elements are liquids at room temperature?
9. Which of the following is the symbol for a metal element?
- A Si
 - B Se
 - C Fe
 - D Te
10. Which of the following is the symbol for a metal element?
- A Rn
 - B Au
 - C Br
 - D Ar

Quick Quiz 13 - Uses of elements - revision

Use the answers below for questions 1 to 10

A	helium
B	oxygen
C	argon
D	chlorine
E	carbon
F	nitrogen
H	titanium
I	mercury
J	lead
K	copper
L	zinc

1. This metal is used in dry batteries.
2. This element is used in pencils.
3. This element is used for water pipes.
4. This element is used by roofers and was used for old water pipes and could cause poisoning.
5. This element is always needed to burn a fuel.
6. This element is used in party balloons.
7. This element kills bacteria.
8. This element is used in thermometers.
9. This element is used in jet engines.
10. This element is used by factories to freeze food.

Quick Quiz 14 - inside an atom

Use the answers below for questions 1 to 2

- A protons and electrons
- B photons, electrons and neutrons
- C protons, electrons and neutrons
- D protons and neutrons

1. An atom contains
2. The nucleus of an atom contains

Use the choices below to answer the following questions

- A neutron
- B nucleus
- C proton
- D electron

3. What is the centre of the atom called?
4. Which two subatomic particles will be found in the nucleus?
(there are **two** answers)
5. Which subatomic particle can be found moving around the outside of the nucleus?
6. Which subatomic particle has no charge?
7. Which subatomic particle is positively charged?
8. Which subatomic particle is negatively charged?
9. Which subatomic particles are responsible for the mass of an atom? (there are **two** answers).
10. The atomic number always tells us the number of

Quick Quiz 15 - how many protons?

Use the answers below for questions 1 to 10

A	helium
B	potassium
C	aluminium
D	chlorine
E	Au
F	nitrogen
H	sulphur
I	Hg
J	Fe
K	P

1. This element has 19 protons in each atom.
2. This element has 26 protons in each atom.
3. This element has 16 protons in each atom.
4. This element has 79 protons in each atom.
5. This element has 17 protons in each atom.
6. This element has 13 protons in each atom.
7. This element has 2 protons in each atom.
8. This element has 7 protons in each atom.
9. This element has 80 protons in each atom.
10. This element has 15 protons in each atom.

Quick Quiz 16 - how many electrons?

Use the answers below for questions 1 to 10

A	helium
B	potassium
C	aluminium
D	chlorine
E	Au
F	nitrogen
H	sulphur
I	Hg
J	Fe
K	P

1. This element has 19 electrons in each atom.
2. This element has 26 electrons in each atom.
3. This element has 16 electrons in each atom.
4. This element has 79 electrons in each atom.
5. This element has 17 electrons in each atom.
6. This element has 13 electrons in each atom.
7. This element has 2 electrons in each atom.
8. This element has 7 electrons in each atom.
9. This element has 80 electrons in each atom.
10. This element has 15 electrons in each atom.

Quick Quiz 17 - proton and electron balance

1. What is the atomic number for rhodium?
A 1803
B 45
C 44
D 89

2. How many protons will an atom of rhodium have in its nucleus?
A 45
B 90
C 44
D 89

3. How many electrons will an atom of rhodium have?
A 45
B 90
C 44
D 89

4. What is the atomic number for bromine?
A 45
B 35
C 17
D 53

5. How many protons will an atom of bromine have in its nucleus?
A 45
B 35
C 17
D 53

6. How many electrons will an atom of bromine have?

- A 45
- B 35
- C 17
- D 53

7. How many electrons will an atom of potassium have in its nucleus?

- A 39
- B 19
- C 0
- D 20

Use the answers below for questions 8 and 9

- A positive
- B negative
- C neutral

8. What charge does the nucleus have?

9. What charge does an atom have?

10. An atom always contains

- A the same number of electrons and protons
- B the same number of electrons and neutrons
- C the same number of protons and neutrons

Quick Quiz 18 - electron arrangement

Use the choices below to answer questions 1 and 2

- A 40
- B 20
- C 10
- D 5

1. How many electrons will an atom of calcium have?

2. How many electrons will an atom of boron have?

3. What is the electron arrangement for an atom of sulphur?

- A 2,5
- B 286
- C 2,8,6
- D 2,8,7

4. What is the electron arrangement for an atom of magnesium?

- A 12
- B 2,8,1
- C 282
- D 2,8,2

5. An atom of phosphorus has the electron arrangement 2,8,5.
How many electrons are there in an atom of phosphorus?

- A 285
- B 2
- C 8
- D 15

Use the answers below for questions 6 and 7

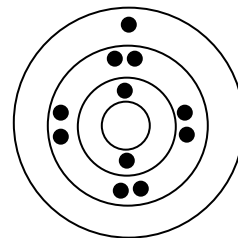
- A 2
- B 8
- C 5
- D 15

6. How many electrons are there in the outer electron shell of an atom of phosphorus?

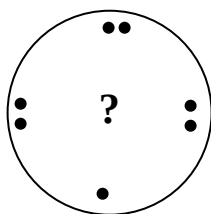
7. How many electrons are there in the second electron shell of an atom of phosphorus?

8. Which element is shown in this diagram?

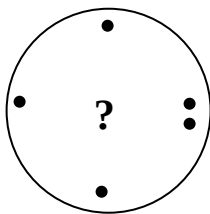
- A potassium
- B sodium
- C magnesium
- D aluminium



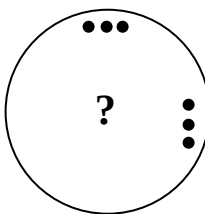
9. Which of pictures below is the best way to draw an outer electron picture for an atom of oxygen?



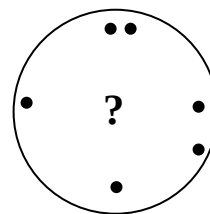
A



B



C



D

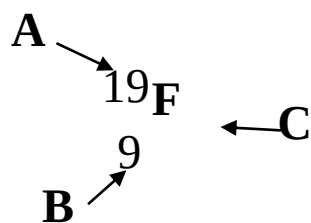
10. Why do elements in the same group have similar chemical properties?

A they have the same number of inner electrons

- B they have the same number of outer electrons
- C they have the same number of protons
- D none of the above

Quick Quiz 19 - mass numbers (N5)

1. What does the atomic number of an atom tell us?
 - A the number of neutrons in an atom
 - B the number of protons in an atom
 - C the number of neutrons plus electrons in an atom
 - D the number of protons plus neutrons in an atom
2. What does the mass number of an atom tell us?
 - A the number of neutrons in an atom
 - B the number of protons in an atom
 - C the number of protons plus electrons in an atom
 - D the number of protons plus neutrons in an atom



Use the diagram below to answer the following questions.

3. Which arrow is pointing to the atomic number?
4. Which arrow is pointing to the mass number?

Use the answers below for questions 5 and 6

- A 9
- B 19
- C 28
- D 10

5. How many protons are in this fluorine atom?
6. How many neutrons are in this fluorine atom?

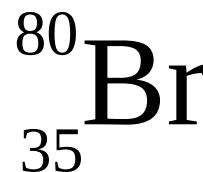
An atom of chlorine has a mass number of 37. Use the choices below to answer questions 7,8 and 9.

- A 17
- B 37
- C 20
- D 54

- 7. How many protons are in the atom?
- 8. How many neutrons are in the atom?
- 9. How many electrons are in the atom?

10. How many neutrons are in this bromine atom?

- A 80
- B 35
- C 45



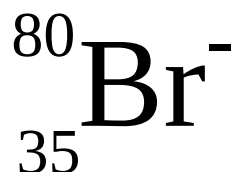
Quick Quiz 20 - nuclide notation atoms and ions (N5)

Use the following answers

- A 10
- B 24
- C 35
- D 11
- E 12
- F 13
- G 45
- H 36

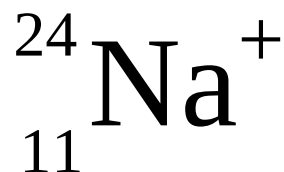
Look at the nuclide notation shown here.

1. How many protons does it show?
2. How many electrons does it show?
3. How many neutrons does it show?



Look at the nuclide notation shown here.

4. How many protons does it show?
5. How many electrons does it show?
6. How many neutrons does it show?



Look at the nuclide notation shown here.

7. How many protons does it show?
8. How many electrons does it show?
9. How many neutrons does it show?
10. What is the mass number?



Quick Quiz 21 - isotopes (N5)

1. Isotopes have
 - A the same mass number but a different atomic number
 - B the same atomic number and the same mass number
 - C the same atomic number but a different mass number

2. Isotopes have
 - A the same number of protons and the same number of neutrons
 - B the same number of protons but a different number of neutrons
 - C the same number of neutrons but a different number of protons

3. Isotopes are different because they have different
 - A numbers of neutrons in the nuclei
 - B numbers of protons in their nuclei
 - C numbers of electrons

4. The atoms below show
 - A isomers
 - B isotopes
 - C isobars

5. The relative atomic mass of an element is
 - A the mass of the least abundant isotope
 - B the total mass of all isotopes of an element
 - C the mass of the most abundant isotope
 - D the average mass of all isotopes of that element



6. Two isotopes of chlorine are shown here. The relative atomic mass for chlorine is 35.5. What does this tell us about the proportions of each isotope?



- A there is the same amount of isotope 37 and 35
- B there is more of the chlorine with a mass number of 37
- C there is less of the chlorine with a mass number of 35
- D there is more of the chlorine with a mass number of 35

Use the answers below for the following questions

- A 37
- B 35
- C 17
- D 0

7. What is the mass number of the most common isotope of chlorine?

8. How many protons does a chlorine atom have in its nucleus?

9. How many electrons does a chlorine atom have in its nucleus?

10. Two isotopes of bromine exist. One has a mass number of 79, the other has a mass number of 81. The relative atomic mass for bromine is 80. What does this tell you about the proportions of each isotope?

- A there is the same amount of each kind of isotope
- B there is more of the bromine with a mass number of 79
- C there is more of the bromine with a mass number of 81
- D none of the above

Quick Quiz 22 - elements, compounds

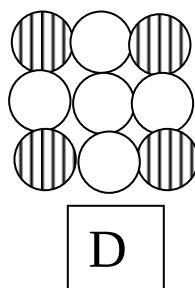
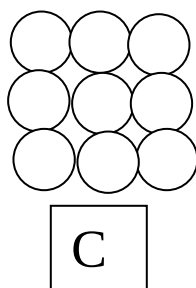
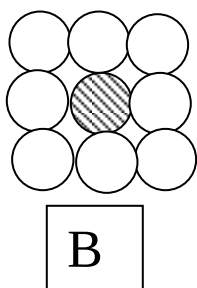
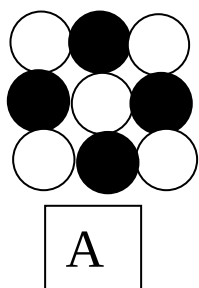
1. What is the most correct way to describe an element?
 - A A substance made from one atom
 - B A substance made from lots of atoms that are different kinds
 - C A metal made from one kind of atom
 - D A substance made from lots of atoms that are all the same kind

2. What is an atom?
 - A an element
 - B a type of reaction
 - C a tiny particle
 - D a nuclear bomb

3. A pure gold bracelet contains
 - A one atom
 - B 100 atoms
 - C 1000 atoms
 - D loads of atoms

4. A pure silver ring contains
 - A some atoms that are larger than others
 - B some atoms that are heavier than others
 - C atoms that are all the same
 - D two kinds of atom

Use the following pictures for questions 5 and 6.



5. Which picture shows an element?

6. Which picture could be sodium?

7. Which list below only shows the names of elements

A water, copper, silver, sodium

B oxygen, hydrogen, gold, steel,

C chrome, carbon, chlorine, helium

D calcium, oxygen, nitrogen, arsenic

Use the following answers for question 8 and 9

A mixture of elements

B pure element

C mixture of compounds

D pure compound

8. Which answer best describes water?

9. Which answer best describes iron sulphide?

10. Which is correct about the periodic table?

A group 1 contains unreactive metals

B group 1 contains reactive non-metals

C group 7 contains reactive metals

D group 7 contains reactive non-metals

Quick Quiz 23 - naming compounds

1. John carried out an experiment where he reacted some iron with sulphur. Which statement is correct?

- A an element called iron sulphide is made.
- B a compound called iron sulphur is made
- C a compound called sulphur ironide is made
- D a compound called iron sulphide is made

Use the following answers for questions 2-7

- A two elements
- B oxygen
- C iterium
- D four elements

2. If the name of a compound ends in oxide it will always contain ...

3. If the name of a compound ends in -ite it will always contain ...

4. If the name of a compound ends in -ate it will always contain ...

5. Copper sulphide contains...

6. Copper sulphate contains...

7. Copper sulphite contains...

8. What elements are in potassium chlorate?

- A potassium, chloride and oxygen
- B potassium, chlorine and oxide
- C potassium and chlorine
- D chlorine, potassium and oxygen

9. What elements are in magnesium nitrite?

A magnesium, oxygen and nitrium

B magnesium, and nitrogen

C magnesium, nitrogen and oxygen

D magnesium, nitrogen and oxide

10. What elements are in calcium carbonate?

A calcium, carbon dioxide and oxygen

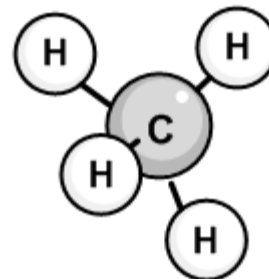
B calcium, carbon and oxygen

C calcium and carbon dioxide

D calcium and carbon

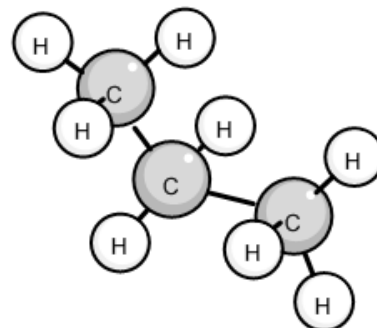
Quick Quiz 24 - molecules and formulae

1. What is a molecule?
A a mole being ridiculed
B an atom
C a group of atoms joined together
D a mole wearing designer sunglasses
2. In a formula
A there are names and numbers
B there are symbols and letters
C there are symbols and numbers
D there are racing cars
3. In a formula
A all numbers go before symbols
B all numbers go after symbols
C all numbers (except one) go before symbols
D all numbers (except one) go after symbols
4. What is the formula for this molecule?
A C^1H_4
B C^1H^4
C C_4H
D CH_4



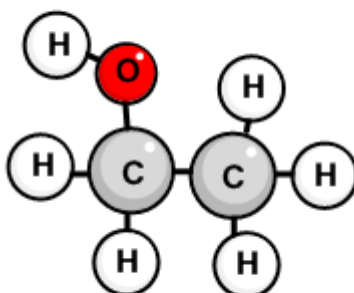
5. What is the formula for this molecule?

- A C_3H_8
- B C^3H^8
- C C_8H_3
- D H_3C_8



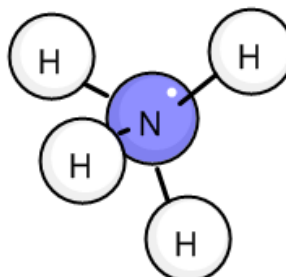
6. What is the formula for this molecule?

- A $C_2H_6O_1$
- B C^2H^6O
- C C_2H_6O
- D C_6H_2O



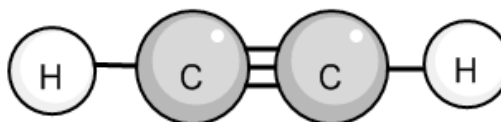
7. What is the formula for this molecule?

- A N^1H_4
- B N^1H^4
- C N_4H
- D NH_4

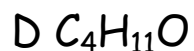
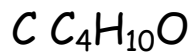
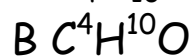
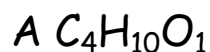


8. What is the formula for this molecule?

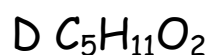
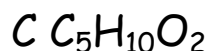
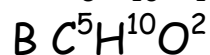
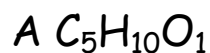
- A C_3H_2
- B CH
- C C_2H_2
- D C_3H_1



9. A molecule with 4 carbons, one oxygen and 10 hydrogen atoms has the formula?



10. A molecule with 5 carbons, 2 oxygen and 10 hydrogen atoms has the formula?



Quick Quiz 25 - valency

1. What does the valency tell us about an atom?

- A how many links it can make
- B what colour it is
- C what state it is
- D whether it is flammable or not

Use the answers for questions 2 to 8

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

2. If an atom has 3 "arms" it has a valency of..

3. If an atom has 2 "arms" it has a valency of..

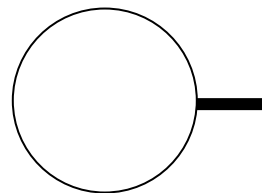
4. If an atom has 4 "arms" it has a valency of..

5. What is the valency of this atom?

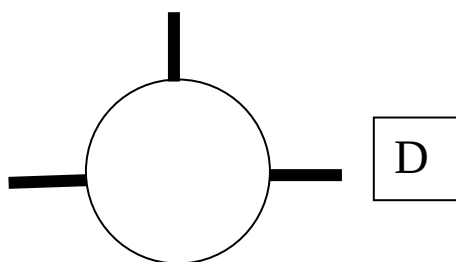
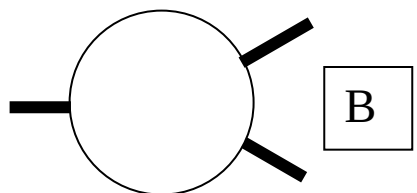
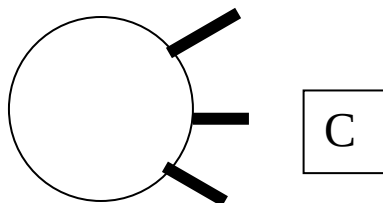
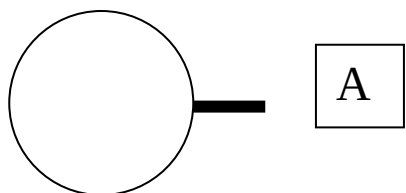
6. What is the valency of magnesium?

7. What is the valency of potassium?

8. What is the valency of oxygen?



9. What is the best picture for an atom with a valency of three?



10. An atom with a valency of zero

- A could be sodium
- B is unreactive
- C can join to other atoms
- D none of the above

Quick Quiz 26 -valency from the periodic table

Use the answers below for the following questions

- A 1
- B 2
- C 3
- D 4
- E 0

1. What is the valency for the elements in group 1?
2. What is the valency for the elements in group 2?
3. What is the valency for the elements in group 3?
4. What is the valency for the elements in group 4?
5. What is the valency for the elements in group 5?
6. What is the valency for the elements in group 6?
7. What is the valency for the elements in group 7?
8. What is the valency for the elements in group 8/0?
9. What is the valency for the non-metal that is a liquid at room temperature?
10. What is the valency for the metal that reacts with cold water and produces a lilac flame?

Quick Quiz 27 - - using valency to work out formula

Use the answers below for the following questions

- A 1
- B 2
- C 3
- D 4
- E 0

1. What is the valency for sodium?
2. What is the valency for chlorine?
3. What is the valency for potassium?
4. What is the valency for magnesium?
5. What is the valency for helium?

6. A compound made from sodium and chlorine will be called

- A sodium chloride
- B sodium chlorine
- C sodium chlorite
- D sodium chlorate

For the following questions you need to write the formula instead of A,B,C,D. (you may wish to draw the valency picture).

7. What is the formula for potassium chloride?
8. What is the formula for magnesium bromide?
9. What is the formula for sodium oxide?
10. What is the formula for calcium sulphide?

Quick Quiz 28 - ate and ite formula (N5)

Use the answers below for the following questions

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

1. What is the valency for a sulphate group?
2. What is the valency for a phosphate group?
3. What is the valency for nitrate group?
4. What is the valency for a sulphite group?
5. What is the valency for a carbonate group?

For the following questions you need to write the formula instead of A,B,C,D. (you may wish to draw the valency picture).

6. What is the formula for potassium nitrate?
7. What is the formula for lithium carbonate?
8. What is the formula for magnesium sulphite?
9. What is the formula for aluminium nitrate?
10. What is the formula for aluminium sulphate?

Quick Quiz 29 - roman numerals (N5)

Use the answers below for the following questions

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

1. What is the valency for copper in copper (II) sulphate?
2. What is the valency for iron in iron (III) oxide?
3. What is the valency for sulphur in copper (I) sulphide
4. What is the valency for calcium in calcium nitrate?
5. What is the valency for vanadium in vanadium (IV) chloride?

For the following questions you need to write the formula instead of A,B,C,D. (you may wish to draw the valency picture).

6. What is the formula for copper (I) oxide?
7. What is the formula for iron (III) sulphide?
8. What is the formula for silver (I) chloride?
9. What is the formula for mercury (II) bromide?
10. What is the formula for chromium (I) sulphate?

Quick Quiz 30 - formula from names

Use the answers below for questions 1 to 7.

- A 1
- B 2
- C 3
- D 4
- E 5
- F 6

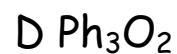
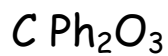
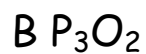
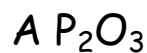
1. What does tri mean?
2. What does hex mean?
3. What does tetra mean?
4. What does mono mean?
5. How many oxygen atoms are in a molecule of carbon dioxide?
6. How many oxygen atoms are in a molecule of dihydrogen monoxide?
7. How many atoms in total does a molecule of carbon dioxide have?
8. What is the formula for sulphur monochloride

- A SiCl
- B SCl
- C SiC
- D SC

9. What is the formula for germanium tetrachloride



10. What is the formula for diphosphorus trioxide



Quick Quiz 31 - formula for elements

Use the answers below for questions 1 to 7.

- A CO_2
- B CO
- C H_2
- D Br_2
- E Cl_2
- F N_2

1. Which formula shows a diatomic element that can be used as a fuel because it is highly flammable?
2. Which formula shows a diatomic element that is a liquid at room temperature?
3. Which formula shows a diatomic compound?
4. Which formula shows a diatomic element that is a green gas at room temperature?
5. Which formula shows a triatomic compound?
6. Which formula shows a diatomic element that takes up 79% of the air?

For the following questions you need to write the formula instead of A,B,C,D.

7. What is the formula for fluorine?
8. What is the formula for potassium?
9. What is the formula for oxygen?
10. What is the formula for mercury?