

GCSE Chemistry A (Gateway Science)
J248/03 C1-C3 and C7 Higher (Higher Tier)

Question Set 1

Multiple Choice Questions

C1: Particles

1 The atomic radius of a helium atom is 0.031 nm.

What is the atomic radius of a helium atom in standard form?

- A 3.1×10^{-1}
- B 3.1×10^{-2}
- C 3.1×10^{-3}
- D 3.1×10^{-4}

Your answer

[1]

2 Niels Bohr was involved in the development of the atomic model.

Which of these statements describes his work?

- A He developed the idea of a nuclear atom.
- B He developed the plum-pudding model of the atom.
- C He stated that atoms were like tiny solid balls.
- D He stated that electrons exist in fixed energy levels.

Your answer

[1]

3 What is the best description of the particles in a liquid?

	Distance between particles	Movement of particles
A	close together	in continuous random motion
B	close together	vibrating about a fixed point
C	far apart	in continuous random motion
D	far apart	vibrating about a fixed point

Your answer

[1]

4 What is the approximate size of an atom?

A 3×10^{-1} metres

B 3×10^{-5} metres

C 3×10^{-9} metres

D 3×10^{-13} metres

Your answer

[1]

Total Marks for Question Set 1: 4

The Periodic Table of the Elements

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)													
1 H hydrogen 1.0	2 He helium 4.0												3 B boron 10.8	4 C carbon 12.0	5 N nitrogen 14.0	6 O oxygen 16.0	7 F fluorine 19.0	8 Ne neon 20.2												
3 Li lithium 6.9	4 Be beryllium 9.0												13 Al aluminum 27.0	14 Si silicon 28.1	15 P phosphorus 31.0	16 S sulfur 32.1	17 Cl chlorine 35.5	18 Ar argon 39.9												
11 Na sodium 23.0	12 Mg magnesium 24.3												19 K potassium 39.1	20 Ca calcium 40.1	21 Sc scandium 45.0	22 Ti titanium 47.9	23 V vanadium 50.9	24 Cr chromium 52.0	25 Mn manganese 54.9	26 Fe iron 55.8	27 Co cobalt 58.9	28 Ni nickel 58.7	29 Cu copper 63.5	30 Zn zinc 65.4	31 Ga gallium 69.7	32 Ge germanium 72.6	33 As arsenic 74.9	34 Se selenium 79.0	35 Br bromine 79.9	36 Kr krypton 83.8
37 Rb rubidium 85.5	38 Sr strontium 87.6	39 Y yttrium 88.9	40 Zr zirconium 91.2	41 Nb niobium 92.9	42 Mo molybdenum 95.9	43 Tc technetium	44 Ru ruthenium 101.1	45 Rh rhodium 102.9	46 Pd palladium 106.4	47 Ag silver 107.9	48 Cd cadmium 112.4	49 In indium 114.8	50 Sn tin 118.7	51 Sb antimony 121.8	52 Te tellurium 127.6	53 I iodine 126.9	54 Xe xenon 131.3													
55 Cs cesium 132.9	56 Ba barium 137.3	57-71 lanthanoids	72 Hf hafnium 178.5	73 Ta tantalum 180.9	74 W tungsten 183.8	75 Re rhenium 186.2	76 Os osmium 190.2	77 Ir iridium 192.2	78 Pt platinum 195.1	79 Au gold 197.0	80 Hg mercury 200.6	81 Tl thallium 204.4	82 Pb lead 207.2	83 Bi bismuth 209.0	84 Po polonium	85 At astatine	86 Rn radon													
87 Fr francium	88 Ra radium	89-103 actinoids	104 Rf rutherfordium	105 Db dubnium	106 Sg seaborgium	107 Bh bohrium	108 Hs hassium	109 Mt meitnerium	110 Ds darmstadtium	111 Rg roentgenium	112 Cn copernicium	113 Nh nihonium	114 Fl flerovium	115 Mc moscovium	116 Lv livermorium	117 Ts tennessine	118 Og oganeson													

Key

atomic number
Symbol
name
relative atomic mass

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