		1				
0 1	This question is about oxygen atoms. The periodic table on the Data Sheet may help you to answer this question.					
	Two isotopes of oxygen are oxygen-16 and oxygen-18.					
	16	18				
	0	0				
	8	8				
	oxygen-16	oxygen-18				
0 1 . 1	Explain, in terms of particles from the nucleus of an oxyg	s, how the nucleus of an oxygen-18 atom is o Jen-16 atom.	different			
			[2 marks]			
0 2	A metal oxide has a relative oxide is XO.	formula mass (Mr) of 81. The formula of thi	s metal			
	X is not the correct symbol	for the metal.				
	The relative atomic mass (A	r) of oxygen is 16.				
02.1	Calculate the relative atomi	c mass (Ar) of metal X.				
			[2 marks]			
	Relative atomic mass (Ar) =					
02.2		nd the periodic table on the Data Sheet to na	ame metal			
	Χ.		[1 mark]			
	The name of metal X is					

0 3	Swimming pools are treated in order to killed microbes. One type of treatment is adding calcium hypochlorite tablets to the water.					
	Calcium hypochlorite formula is CaCl ₂ O ₂					
0 3 . 1	Calculate the relative formula mass (M_r) of calcium hypochlorite.					
	Relative atomic masses: 0 = 16; Cl = 35.5; Ca = 40.	marks]				
	Relative formula mass (Mr) of calcium hypochlorite =					

2

(Total 7 marks)

End of Question See next page for Data Sheet

0	H e 4	2 20 Neon	10 Ar argon	84	krypton 36		xenon 54	[222] Rn	radon 86		
7		19 fluorine	9 35.5 Chlorine	80	bromine SE	127 	iodine 53	[210] At	astatine 85		
9		16 oxygen	32 sulfur sulfur	62	Selenium 31	128 Te	tellurium 52	[209] Po	polonium 84		
5		14 N nitrogen	31 31 phosphorous	75	AS arsenic	50 Sb	antimony 51	209 Bi	bismuth 83		
4		12 Carbon	6 28 silicon	13	Ge _{عم}	50 Sn	tin 50	207 702	lead 82		
e		L B	5 27 Al aluminium	20	gallium 31	ءا 115	indium 49	204 TI	thallium 81		
				65	Zn ^{zinc}		cadmium 48	201 Hq	mercury 80		
				63.5	Cu	A d	silver 47	197 Au	gold 79	[272] Rg)
				59	Ni nickel	²⁰¹	palladium 46	بط ¹⁹⁵	platinum 78	[271] DS	-
				59	cobalt	201 Bh	rhodium 45	192 Ir	iridium 77	[268] Mt	
	\mathbf{H}^{h}	-		56		¹⁰¹ Bu					
				55	Mn manganese		technetium 43	186 Re	rhenium 75	[264] Bh	t a hair and
		RET relative atomic mass atomic symbol	name atomic number	52	chromium	⁴⁵ 96 Mo		184 W			1
	VEV	 → relative → atomic 	↓ ↓ atomic	51	vanadium	SE q	c		٤	[262] Db	and the second se
			hydrogen	48	titanium 30	²² 91 Zr	zirconium 40	178 Hf	hafnium 72	[261] Rf	
				45	Sc scandium	68	yttrium 39	139 La	lanthanum 57	[227] Ac	
2		9 Be beryllium	24 Dg magnesium	40	calcium Calcium	د ۲۳۵	strontium 38	137 Ba			
-		lithium			potassium 10	ت ۳۳	rubidium 37	CS 133	caesium 55	[223] Fr	famely and

RELATIVE FORMULA MASS