Question	Marking guidance	Mark	AO	Comments
07.1				Extended response calculation
	Stage 1			
	M_r for $Mg(NO_3)_2$ = 148.3			
	Moles of $Mg(NO_3)_2$ = $\frac{3.74 \times 10^{-2}}{148.3}$ = 2.522×10^{-4} mol	1	AO2h	
	Stage 2			
	Total moles of gas produced = 5/2 × moles of $Mg(NO_3)_2$			
	= $5/2 \times 2.522 \times 10^{-4}$ = 6.305×10^{-4}	1	AO2h	
	Stage 3			If ratio in stage 2 is incorrect, maximum marks for stage 3 is 2
	PV=nRT so volume of gas $V = nRT/P$	1	AO2h	
	$V = \frac{nRT}{P} = \frac{6.305 \times 10^{-4} \times 8.31 \times 333}{1.00 \times 10^{5}} = 1.745 \times 10^{-5}$ m^3	1	AO2h	
	$V = 1.745 \times 10^{-5} \times 1 \times 10^{6} = 17.45$ cm^3 = 17.5 (cm^3)	1	AO1b	Answer must be to 3 significant figures (answer could be 17.4 cm^3 dependent on intermediate values)
07.2	Some of the solid is lost in weighing product / solid is blown away with the gas	1	AO3 1b	