

01. 0625\_s17\_ms\_41 Q: 3

(a)(i)	(Weight is) force/pull of gravity (acting on an object)	<b>B1</b>
(a)(ii)	Mass $\times$ acceleration due to gravity OR $mg$ OR $350 \times 7.5$	<b>C1</b>
	2600 N	<b>A1</b>
(b)	$(\rho =) m/V$ in any form	<b>C1</b>
	0.27 ( $\text{kg}/\text{m}^3$ ) OR 270 ( $\text{g}/\text{m}^3$ )	<b>A1</b>
	Balloon moves/floats <u>up</u>	<b>B1</b>
	(Floats when) density of balloon less than density of atmosphere OR (sinks when) density of balloon greater than atmosphere	<b>B1</b>
	OR $(\rho =) m/V$ in any form	<b>(C1)</b>
	110 g	<b>(A1)</b>
	Balloon rises	<b>(B1)</b>
	(Floats when) mass/weight of balloon less than mass/weight of atmosphere (of same volume as balloon) (Sinks when) mass/weight of balloon greater than mass/weight of atmosphere (of same volume as balloon)	<b>(B1)</b>
	<b>Total:</b>	<b>7</b>



**AcelGCSE**  
Paper Perfection, Crafted With Passion