

Question Number	Answer	Mark
12	<p>Two pairs of p, V readings from graph (1)</p> <p>Additional pair(s) of p, V readings from graph (1)</p> <p>$pV = 0.66 (\times 10^3 \text{ Pa m}^3)$ (1) [calculated for at least one pair of p, V readings]</p> <p>Comment that value of pV is constant and so the student's claim is valid (1) [dependent upon pV calculated for at least two pairs of p, V readings]</p> <p><u>Example of calculation</u></p> <p>$p = 110 \text{ kPa}$, $V = 0.006 \text{ m}^3$ $pV = 110 \times 10^3 \text{ Pa} \times 0.006 \text{ m}^3 = 660 \text{ Pa m}^3$</p> <p>$p = 60 \text{ kPa}$, $V = 0.011 \text{ m}^3$ $pV = 60 \times 10^3 \text{ Pa} \times 0.011 \text{ m}^3 = 660 \text{ Pa m}^3$</p> <p>$p = 51 \text{ kPa}$, $V = 0.013 \text{ m}^3$ $pV = 51 \times 10^3 \text{ Pa} \times 0.013 \text{ m}^3 = 663 \text{ Pa m}^3$</p>	4
	Total for question 12	4