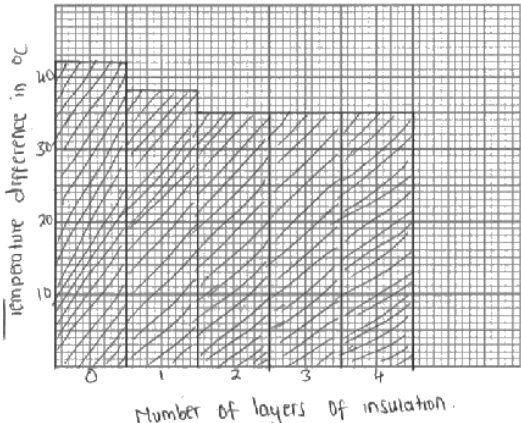


Question number	Answer			Notes	Marks																		
4 (a)	(i)	number of layers (of insulation);			1																		
	(ii)	final temperature (of the water) / temperature after 15 minutes / rate at which the water cools down;			1																		
(b)	(i)	<table><tr><th>Number of layers of insulation</th><th>Final temperature in °C</th><th>Temperature difference in °C</th></tr><tr><td>0</td><td>43</td><td>42</td></tr><tr><td>1</td><td>47</td><td>38</td></tr><tr><td>2</td><td>50</td><td>35</td></tr><tr><td>3</td><td>50</td><td>35</td></tr><tr><td>4</td><td>50</td><td>35</td></tr></table> <p>47 in first answer space; 50 in last three answer spaces;</p>	Number of layers of insulation	Final temperature in °C	Temperature difference in °C	0	43	42	1	47	38	2	50	35	3	50	35	4	50	35			2
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0	43	42																					
1	47	38																					
2	50	35																					
3	50	35																					
4	50	35																					
	(ii)	<p>suitable scale chosen – longest bar occupies at least half of the grid;</p> <p>axes labelled correctly with quantities and temperature difference unit; all 5 bars correctly plotted; ;</p> 		<p>must be seen in all three spaces</p> <p>ignore orientation</p> <p>temperature scale should be linear but need not start at 0</p> <p>reject both plotting marks if a line graph is drawn</p> <p>award 3 marks max. if graph is drawn using final temperature values instead of temperature difference values</p>	4																		