

Grouped Frequency tables Mark Scheme														
1	<table border="1"> <thead> <tr> <th>Score, s</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>$0 < s \leq 2000$</td> <td>3</td> </tr> <tr> <td>$2000 < s \leq 4000$</td> <td>2</td> </tr> <tr> <td>$4000 < s \leq 6000$</td> <td>5</td> </tr> <tr> <td>$6000 < s \leq 8000$</td> <td>3</td> </tr> <tr> <td>$8000 < s \leq 10\ 000$</td> <td>6</td> </tr> </tbody> </table>	Score, s	Frequency	$0 < s \leq 2000$	3	$2000 < s \leq 4000$	2	$4000 < s \leq 6000$	5	$6000 < s \leq 8000$	3	$8000 < s \leq 10\ 000$	6	<p>[1] 3 correct value</p> <p>[1] 4 correct values</p> <p>[1] All correct</p>
Score, s	Frequency													
$0 < s \leq 2000$	3													
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2(a)	$6248 + 4635 + 2751 = 13\ 634$	[1]												
2(b)	<p>No, the information is not specific enough.</p> <p>No, it could be that all of the people in this category spent less than a minute, none of them did, or anything between.</p> <p>Can't tell where each person sits within the group or class as the data is grouped.</p>	[1] Must give one of the explanations provided.												
3	$27 + 42 = 69$	[1]												
	$84 - 69 = 15$	[1]												
4	<p>12 is presently the 2nd most common category and 11 is the third most common before the two were added.</p> <p style="text-align: center;">$10 < s \leq 20$</p>	[2] explanation is not required for marks												
5(a)	$45 < t \leq 60$	[1] Median value is the 40 th value (80/2)												
5(b)	$75 < t \leq 90$	[1] Modal group is the group with the highest frequency (22)												

Turn over ►

6(a)	Because the groups are all similar in size	[1]												
6(b)	The groups could be further split into 0.5 seconds groups. This would give a better view of how the students did in the race.	[1]												
7(a)	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Score (%)</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>$0 < x \leq 20$</td> <td>10</td> </tr> <tr> <td>$20 < x \leq 50$</td> <td>16</td> </tr> <tr> <td>$50 < x \leq 70$</td> <td>26</td> </tr> <tr> <td>$70 < x \leq 90$</td> <td>12</td> </tr> <tr> <td>$90 < x \leq 100$</td> <td>6</td> </tr> </tbody> </table>	Score (%)	Frequency	$0 < x \leq 20$	10	$20 < x \leq 50$	16	$50 < x \leq 70$	26	$70 < x \leq 90$	12	$90 < x \leq 100$	6	<p>[1] Correct group widths</p> <p>[1] Correct inequality signs</p> <p>[1] Correct frequency values</p>
Score (%)	Frequency													
$0 < x \leq 20$	10													
$20 < x \leq 50$	16													
$50 < x \leq 70$	26													
$70 < x \leq 90$	12													
$90 < x \leq 100$	6													
7(b)	Only need to calculate one mean	[1] Advantage												
	Can't compare classes	[1] Disadvantage												
8(a)	30	[1] (6+8+16)												
8(b)	$300 < s \leq 400$	[1] Median is 15 th value between 100s and 400s												
8(c)	$300 < s \leq 400$	[1] Group with the highest frequency												

END