

1	19	M1	for a method to find 5 products within intervals (including end points)	<table border="1"> <thead> <tr> <th>Min <math>f_x</math></th> <th>Max <math>f_x</math></th> </tr> </thead> <tbody> <tr> <td>0</td> <td>80</td> </tr> <tr> <td>100</td> <td>200</td> </tr> <tr> <td>140</td> <td>210</td> </tr> <tr> <td>60</td> <td>80</td> </tr> <tr> <td>120</td> <td>150</td> </tr> </tbody> </table>	Min $f_x$	Max $f_x$	0	80	100	200	140	210	60	80	120	150
		Min $f_x$	Max $f_x$													
		0	80													
100	200															
140	210															
60	80															
120	150															
M1	for $\Sigma f_x = (8 + 10 + 7 + 2 + 3)$ <b>or</b> $(5 \times 8 + 15 \times 10 + 25 \times 7 + 35 \times 2 + 45 \times 3) \div (8 + 10 + 7 + 2 + 3)$ <b>or</b> ("40" + "150" + "175" + "70" + "135") + "30" <b>or</b> "570" + "30"	$\Sigma f_x$ <b>must</b> come from 5 products $f_x$ within intervals (including end points)														
A1	cao															

2	(a)	10, 25, 50, 80, 85, 100	B1	cao	<p>If histograms drawn, plots must be identified.</p> <p>Accept a smooth curve or line segments. Ignore to the left of the first point and right of the last point.</p> <p>If answer is in the range award the marks unless from obvious incorrect working</p>
	(b)	Graph drawn	M1	for 5 or 6 of their points plotted correctly from a cf table with no more than one error	
			A1	for a fully correct graph  SC B1 for 5 or 6 cf values plotted at correct heights not at end but consistently within each interval and joined provided no gradient is negative	
	(c)	35 to 39	B1	for answer in the range 35 to 39 <b>or</b> ft their graph (if possible)	
	(d)	85 to 93	M1	for finding the difference between readings taken from the profit axis at points from a cf of 25 and a cf of 75 ft their graph (if possible)	
			A1	for answer in the range 85 to 93 <b>or</b> ft their graph (if possible)	