

1		12	M1 A1	for evidence of taking a reading from the graph from $h = 160$ for answer in the range 11.8 to 12.2	
2	(a)	57	B1	cao	
	(b)	Decision and reason	C1	Jamil might not be correct and reason, eg the maximum weight could be less than 80 or the minimum weight could be less than 40	
	(c)	Shown	C1  C1	for evidence of reading from the graph at weight 65 (= 48 to 49) or at cf 45 (= 63)  eg 25% of 60 is 15 but only 11 potatoes have a weight greater than 65g or 25% of potatoes have a weight greater than 63g	
3	(a)	box plot drawn	B1  B1 B1	ends of whiskers at 0 and 42 with a box  median at 10 inside a box  for ends of box at 4 and 20	The box can be of any height. Accept ends that are marked (eg line, cross, dot) or defined by the end of the whiskers if clear.  Has to be inside a box; whiskers not required  An independent mark that can be awarded for just a box; do not need whiskers for this mark.
	(b)	Comparison	C1  C1	for a correct comparison of medians, eg. the median delay time on Mon was greater than the median delay time on Tues. or ft (a)  for a correct comparison of a measure of spread, eg. the interquartile range (range) of delay times on Mon was greater than the interquartile range (range) of delay times on Tues. or ft (a) For the award of both marks at least one of the comparisons must be in context	Simply quoting values for median, range and IQR is insufficient, they must be compared  Comparisons can relate to the median, and then either the range or the IQR.
	(c)	statement	C1	'No' with statement explaining that there might not be any delays between 25 minutes and 30 minutes as in the upper 25% (12 trains) the delays may all be between 17 and 25 or 30 and 33	The 'No' may be implied from their wording, and could be written next to the "?" The statement must mention (or imply) values above the UQ of 17
4	(a)	5, 35, 55, 70, 78, 80	B1	cao	
	(b)	cf graph	M1  A1	for 5 or 6 of their points plotted correctly from a cf table  for a fully correct graph	Ignore to the left of the first point and right of the last point  Accept a smooth curve or line segments
	(c)	7.5	M1  M1  A1	for a clear method to read off the cf graph at 90  for a full method to find the percentage eg $(80 - "74") \div 80 \times 100 (=7.5)$  for 7.5 or ft cf graph	Sight of 74 or 6 implies M1  The following readings give the following percentages  72 = 10% 73 = 8.75% 74 = 7.5% 75 = 6.25% 76 = 5%

