



Q	Answer	Marks
1	a) 19 minutes b) 12 minutes c) 26 minutes	3
2	a) 11 b) lower quartile 6, upper quartile 16 c) 10	3
3	a) median 11.5, lower quartile 7, upper quartile 16.5 b) 9.5 c) 3, 7, 11.5, 16.5, 23	4
4	lowest) 12 lower quartile) 20 median) 29 upper quartile) 38 highest) 45	3
5	a) £85 b) Shop B has the higher median so its bikes cost more on average; Shop A has the larger IQR so its prices vary more c) Shop B - smaller interquartile range means more consistent prices	4
6	Northline IQR 5, Citygo IQR 3. Citygo is more consistent (smaller IQR). Northline has the shorter typical delay (median 6 < 7).	3
7	a) 6, 20, 46, 68, 80 b) points at (10,6),(20,20),(30,46),(40,68),(50,80) joined by a smooth curve through the origin c) approximately 28 cm (accept 26-29) d) approximately 16 cm (accept 14-19)	6
8	a) 4, 15, 34, 46, 50 b) about 15.2 minutes	4
9	a) approximately 32 (accept 31-34) b) approximately 18 (accept 15-21) c) Class B has the higher median (45 vs about 32) so did better on average; Class B has the smaller IQR (12 vs about 18) so its scores are less spread out	6
10	a) median 42, lower quartile 38, upper quartile 46 b) Team A has the lower median so was faster on average; Team A has the smaller IQR so was more consistent	5
11	a) Box plot with whiskers at 11 and 24, box from 13 to 18, median line at 15 b) 5	3
12	a) Smooth curve through (0, 0), (10, 6), (20, 20), (30, 46), (40, 66), (50, 76), (60, 80) b) about 17 minutes (accept 16 to 18)	5
13	a) range 10, IQR 5.5 b) range 37, IQR 6 c) The IQR changes much less, because it uses only the middle half of the data and ignores extreme values	5

14	a) 6, 24, 52, 72, 80 b) $40 < s \leq 60$ c) 29 d) 35% e) Higher median this year (51 vs 46) so better on average; larger IQR this year (29 vs 24) so more spread out	7
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Full worked solutions, written out by hand, are on the solutions sheet for this topic.