1(a)(i)	18.9 or $18\frac{9}{10}$ nfww	**2**	**M1** for (17×5 + 18×2 + 19×7 + 20×3 + 21×2 + 22×1) ÷ (5 + 2 + 7 + 3 + 2 + 1)
1(a)(ii)	5	**1**	
1(a)(iii)	Type A has more tomatoes per plant oe Number of tomatoes per plant is more consistent for type A oe	**2**	**Strict FT** *their* mean and range **B1FT** for each
1(b)(i)	Correct cumulative frequency curve	**3**	**B2** for 4 or 5 points plotted correctly or **B1** for 4 or 5 correct cumulative frequencies soi
1(b)(ii)	13.3 to 15.8… nfww	**3**	**M1** for correct reading of *their* increasing curve at $m = 21$ **M1** for $\frac{120 - y}{120}[\times 100]$
2(a)	10	**1**	
2(b)	Correct histogram	**3**	**FT** *their* **(a)** **B1FT** for 3 or 4 rectangles on correct bases **B1** for 3 or 4 rectangles with correct heights If 0 scored, **SC1** for frequency densities 3 and 2 soi
3(a)(i)	39	**1**	
3(a)(ii)	147.5 or $147\frac{1}{2}$ cao nfww	**3**	**B1** for correct midpoints soi **M1** for $\frac{13\times100 + 26\times130 + 27\times145 + 24\times195}{13 + 26 + 27 + 24}$
3(b)(i)	22 36 46 8 or 22 35 47 8	**2**	**B1** for 2 or 3 correct
3(b)(ii)	192.5 to 197.5	**1**	
3(b)(iii)	212.5 to 217.5 nfww	**3**	**B2** for 84 soi or **M1** for $\frac{55}{100}\times120$ or 18 + *their* 66

4(a)	Table and pictogram correct 8 12 5 7 Apple  Orange 	**3**	**B1** for 12 and 7 correct **B1** for Apple row correct **B1** for Orange row correct
4(b)	Banana	**1**	
5(a)(i)	58	**1**	
5(a)(ii)	11	**2**	**B1** for 62 or 51 written
5(b)	21 to 24	**2**	**B1** for 96 to 99 written
6(a)(i)	16 to 20	**1**	
6(a)(ii)	240	**2**	**M1** for $\frac{90}{54}$ [×144] or $\frac{144}{54}$ [×90] or $54x = 90 \times 144$
6(b)(i)	Correct histogram	**3**	**B1** for 3 or more rectangles on correct bases **B1** for 3 or more correct frequency densities soi
6(b)(ii)	28.8	**2**	**M1** for $\frac{30+42}{250}[\times 100]$ oe or for $\frac{k}{250}\times 100$, where $42 < k < 102$ but $k \neq 75$
7(a)	Correct bar height 0.6	**1**	
7(b)	15	**3**	**M2** for $\frac{12}{20+6\times5+1.8\times10+12}[\times 100]$ or **M1** for 6 × 5 and 1.8 × 10 soi as frequencies
8(a)	4	**1**	
8(b)	3.94 or $3\frac{94}{100}$ or $3\frac{47}{50}$	**2**	**M1** for $\frac{1\times8+2\times10+3\times22+4\times28+5\times15+6\times9+7\times5+8\times3}{100}$
9(a)	Complete scatter diagram	**2**	**B1** for 3 or 4 correct plots
9(b)	Temperature increases cups of hot chocolate sold decreases oe	**1**	
9(c)	Ruled line of best fit	**B1**	
	Reading their ruled line of best fit at 17 °C	**B1**	**Strict FT –** must be an integer from a line with a negative gradient
10	Sector 150° labelled banana Sector 90° labelled orange	**2**	**B1** for 90° or 150° seen or sector with correct angle drawn

11	**(a)** (1) (3) 9 43 69 77 79 (80) B1	1	Table not copied so values not seen B0
	(b) All 8 points plotted ft P2		After P0, at least 5 correct plots ft P1
	Smooth ogive curve through all plotted points C1	3	Dependent on P1. Straight line graphs or ruled sections will be C0
	(c) **(i)** 192 –198 B1	1	Not 200.
	(ii) 142 – 148 B1	1	After B0 in **(c)**, reading their cumulative curve at 40 and 8 M1
	(d) Curve through the points (50,3), (350,80), (250,40), (275,60), (200,20) P3	3	After P0, 3 correct points plotted P2 2 correct points plotted P1
	(e) **(i)** 71 or 72 B1	1	In **(e) (i)** and **(ii)**, accept non integer values rounding to these given.
	(ii) 47, 48 or 49 B1	1	After B0 in **(e)**, M1 available for reading both graphs at 260
	(f) B with some support B1	1	Support such as the probabilities $\frac{11}{80}$ or $\frac{40}{80}$ The reference must imply a direct comparison of the brands at 250.
		[12]	

12)	0 to 5	**1**	
12)	40	**2**	**M1** for $[8\times]\frac{360}{72}$ or $\frac{72}{8}$
13)	Negative	**1**	
13)	Ruled line of best fi t	**1**	
13)	136 to 140	**1**	**FT** *their* straight line of best fit

14)(i)	6 points plotted correctly	**2**	**B1** for 3, 4 or 5 points plotted correctly
14)(ii)	4	**1**	
14(iii)	Positive	**1**	
14)(iv)	Ruled line of best fit	**1**	
14 (v)	*Their* time for 800 m at 65 s for 400 m	**1**	Strict **FT** their straight line of best fit
15)	Correct frequency polygon (ruled lines)	**2**	**B1** for 4 or 5 heights correct soi
16 (i)	correct plots and give curve	**2**	**P1** for at least 4 correct plots
(ii)	**(a)** (195) (g)	**1ft**	
	(b) 72 to 88 (g)	**2ft**	**B1** for 152 to 158 and 230 to 240 Or **M1** for UQ – LQ
(iii)	50 78 72 32 4	**1**	
(iv)	**(a)** 36 cao	**1**	
	(b) 85 or 86 or ft (th Percentile)	**2ft**	**B1** for 15 or 14.4 or ft Or **M1** for subtraction from 240 or 250