



1(a)(i)	18.9 or $18\frac{9}{10}$ nfw	2	M1 for $(17 \times 5 + 18 \times 2 + 19 \times 7 + 20 \times 3 + 21 \times 2 + 22 \times 1) \div (5 + 2 + 7 + 3 + 2 + 1)$
1(a)(ii)	5	1	
1(a)(iii)	Type A has more tomatoes per plant or Number of tomatoes per plant is more consistent for type A or	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... nfw	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 nfw	3	B1 for correct midpoints soi M1 for $\frac{13 \times 100 + 26 \times 130 + 27 \times 145 + 24 \times 195}{13 + 26 + 27 + 24}$
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 nfw	3	B2 for 84 soi or M1 for $\frac{55}{100} \times 120$ 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 $\frac{90}{54} [\times 144]$ or $\frac{144}{54} [\times 90]$ 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 $\frac{12}{20+6 \times 5+1.8 \times 10+12} [\times 100]$ 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 $\frac{1 \times 8 + 2 \times 10 + 3 \times 22 + 4 \times 28 + 5 \times 15 + 6 \times 9 + 7 \times 5 + 8 \times 3}{100}$
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 2 correct points plotted	P2 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 fit		1		
13)	136 to 140		1	FT <i>their</i> 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)	<i>Their</i> 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