Question Number	Scheme		Marks
5 (a)	[Time is] continuous		B1
			(1)
(b)	16 photographers = 160 small squares or 64 photographers = 640 small squares or $\frac{16}{160}=0.1$ or $\frac{64}{640}=0.1$ or $\frac{160}{16}=10$ or $\frac{640}{64}=10$ Frequency density = 1.6 or Correct scale on the frequency density axis		M1
	$\frac{x}{240}=\frac{16}{160}$ oe or $\frac{(20-12)}{10}\times 16+\frac{(24-20)}{5}\times 14$		M1
	= 24		A1
			(3)
(c)	**Using *n***	**Using *n* + 1**	M1
	$[Q_2 =]20+\frac{(32-21)}{35-21}\times(25-20)$ oe or $25-\frac{35-32}{35-21}\times(25-20)$ oe	$[Q_2 =]\ 20+\frac{(32.5-21)}{35-21}\times(25-20)$ oe or $25-\frac{35-32.5}{35-21}\times(25-20)$ oe	
	= awrt 23.9	= awrt 24.1	A1
			(2)
(d)	Mean = Median or Mean ≈ Median		M1
	e.g. Appropriate decision. Consistent with expectation for a normal distribution.		A1ft
			(2)

	Notes	**Total 8**
(a)	**B1**	Allow not discrete
(b)	**M1**	For establishing a ratio between photographers and area or calculating frequency density (may be implied by 2nd M1)
	M1	For a correct ratio or expression using areas for photographers from 12 to 24
	A1	Cao
(c)	**M1**	For a correct method to find median using either *n* or *n* + 1
	A1	awrt 23.9 or awrt 24.1 if using *n* + 1
(d)	**M1**	For a correct comment about mean and median ft their median Allow mean is close to median to imply mean ≈ median Ignore any comments made about the shape of the histogram
	A1ft	For a correct compatible comment about Charlie's decision ft their median If Mean = Median or Mean ≈ Median, then the decision should be that a normal distribution is suitable [due to symmetry] If Mean < Median or Mean > Median or mean ≠ median, then the decision should be that a normal distribution is not suitable [due to the skew in the data]