statsGCSE

Statistics GCSE

# Paper 2

Edexcel Foundation - 2026

Foundation Tier

Variant 5 1ST0/2F

# Mark scheme

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| Question | Mark Scheme | Mark |
|---|---|---|
| **1 (a)** | [1 mark] unlikely | **1** |

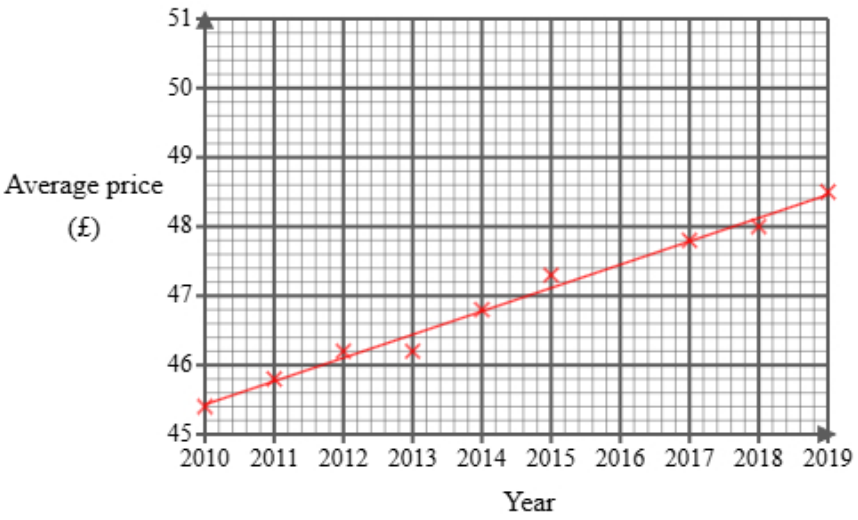
| Question | Mark Scheme | Mark |
|---|---|---|
| **1 (b)** | [1 mark] certain | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **1 (c)** | [1 mark] B | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **1 (d)** | [1 mark] F | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **2 (a)** | (part i)<br>[2 marks] all **three** points plotted correctly<br>**OR**<br>[1 mark] at least **one** point plotted correctly<br><br>(part ii)<br>[1 mark] Straight trend line drawn<br><br>(part iii)<br>[1 mark] increasing/upward/rising (accept positive if without 'correlation') | **4** |

**Question 2 (a) model answer**




| Question | Mark Scheme | Mark |
|---|---|---|
| **2 (b)** | [1 mark] increases per year (ignore figures) | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **2 (c)** | [2 marks] correct reason (does not start from zero/changes exaggerated) **and** decision (the graph is misleading)<br>**OR**<br>[1 mark] correct reason | **2** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **2 (d)** | [3 marks] 2016 is reliable because it is within the data **and** 2020 is not reliable because it is outside the data<br>**OR**<br>[2 marks] 2016 is reliable because it is within the data **or** 2020 is not reliable because it is outside the data<br>**OR**<br>[1 mark] 2016 is reliable **and** 2020 is not reliable | **3** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **3 (a)** |  | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **3 (b)** | [1 mark] Demonstrate an understanding that it is hard to use the key. | **1** |

**Question 3 (b) model answer**

Monday shows 16 loaves of bread. This would be very difficult to show because 16 has a remainder 1 when divided by 5.

| Question | Mark Scheme | Mark |
|---|---|---|
| **4 (a)** | [1 mark] Correct reason. | **1** |

**Question 4 (a) model answer**

'Married/in a CP' has the largest sector.

| Question | Mark Scheme | Mark |
|---|---|---|
| **4 (b)** | [1 mark] Finding angle of 'Never married/in a CP' is 122°<br><br>$\frac{137}{360} \times 60$<br><br>[1 mark] 23 million | **2** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **5 (a)** | [1 mark] game genre | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **5 (b)** | [1 mark] number of players | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **5 (c)** | [2 marks] random starting point between 1 and 5 **and** select every 5th person<br>**OR**<br>[1 mark] random starting point between 1 and 5 **or** select every 5th person **or** both points with missing/incorrect numbers | **2** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **6 (a)** | [1 mark] **all** the students in Ava's school | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **6 (b)** | [1 mark] correct definition of convenience or opportunity sampling (sampling first people you see, easiest to access, closest to you, etc) | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **6 (c)** | [1 mark] correct disadvantage of convenience sampling (not representative, could be biased) | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **6 (d)** | [1 mark for each] **maximum 2 marks**<br>+ easier to analyse responses, create graphs, identify the most popular<br>+ there are too few options<br>+ students might select more than one option.<br>+ students may not be able to select any of the options<br>+ “other” should be an option | **2** |

**Question 6 (d) model answer**

It will make it easy for Ava to analyse the data. There are too few options.

| Question | Mark Scheme | Mark |
|---|---|---|
| **6 (e)** | [2 marks] not suitable **and** the data is qualitative<br>**OR**<br>[1 mark] not suitable with attempt at reason **or** the data is qualitative | **2** |

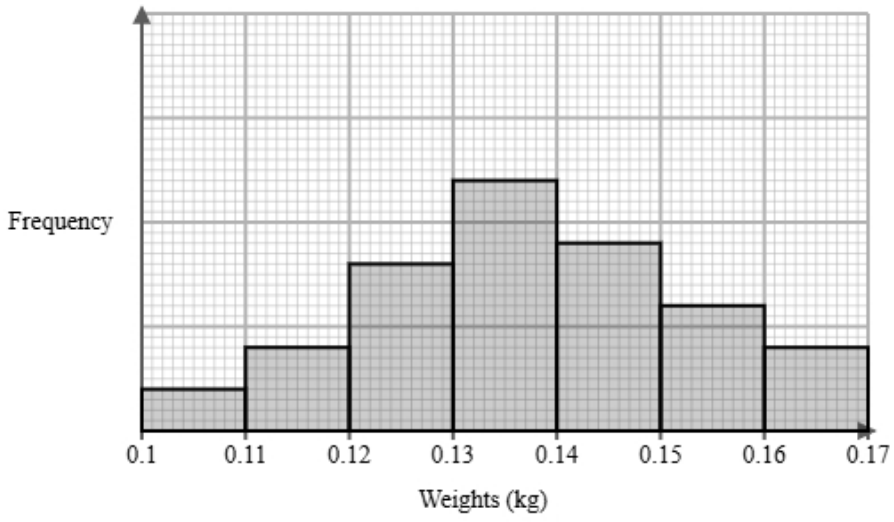
| Question | Mark Scheme | Mark |
|---|---|---|
| **7 (a)** | [1 mark] ordinal | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **7 (b)** | [1 mark] number to all the people<br>[1 mark] select 20 unique numbers in range<br>[1 mark] select people with corresponding numbers | **3** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **8 (a)** | [1 mark] 6 **and** 4<br>**OR**<br>[1 mark] 6 **or** 4 **or** evidence of correct scale of frequency axis | **2** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **8 (b)** | [2 marks] both bars at correct heights (24 and 18 little squares)<br>**OR**<br>[1 mark] one correct bar **or** bars using the scale they have shown | **2** |

**Question 8 (b) model answer**




| Question | Mark Scheme | Mark |
|---|---|---|
| **8 (c)** | [1 mark] negative **or** negative skew (do not accept negative correlation)<br>[1 mark] correct interpretation (weights above the median have a greater spread **or** the mean is smaller than the median) | **2** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **8 (d)** | [1 mark] correct working to find the mean<br>[1 mark] 127.6 g (assume correct working)<br>[1 mark] Omar is incorrect<br>[1 mark] correct limitation of conclusion (difference may be specific to a different pet shop **or** mean are in same class interval **or** we do not know the original data) | **4** |

**Question 8 (d) model answer**

| weight w (grams) | Frequency | Midpoint | $fw$ |
|---|---|---|---|
| $80 < w \leqslant 100$ | 1 | 90 | 90 |
| $100 < w \leqslant 120$ | 9 | 110 | 990 |
| $120 < w \leqslant 140$ | 17 | 130 | 2210 |
| $140 < w \leqslant 160$ | 7 | 150 | 1050 |
| | $\sum f = 34$ | | $\sum fw = 4340$ |

$$\sum f = 34$$

$$\sum fw = 4340$$

$$\frac{\sum fw}{\sum f} = \frac{4340}{34}$$

$$= 127.647\ldots$$

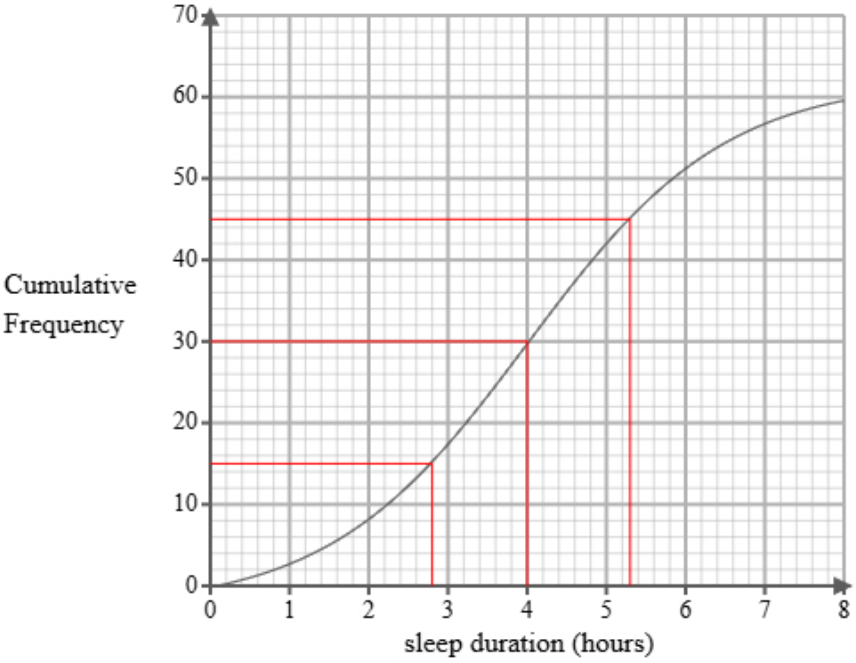
$$= 127.6 \text{ g (1 d.p)}$$

Omar is incorrect

We cannot be sure because both means are in the same class interval.

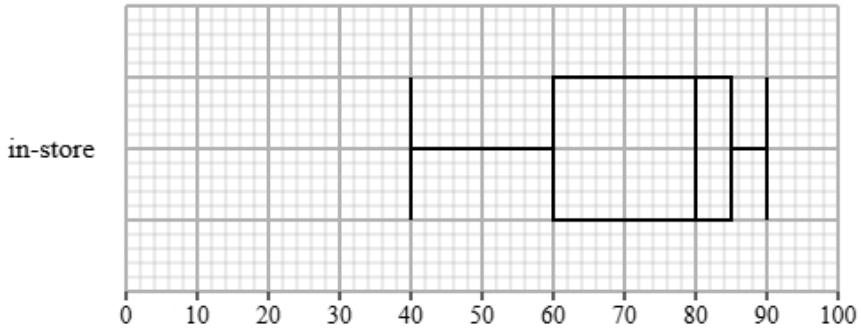
| Question | Mark Scheme | Mark |
|---|---|---|
| **9** | [2 marks] $Q_1 = 2.8$ **and** $Q_2 = 4$ **and** $Q_3 = 5.3$ (accept $\pm 0.1$ with evidence on graph)<br>**OR**<br>[1 mark] one value correct | **2** |

**Question 9 model answer**



| Question | Mark Scheme | Mark |
|---|---|---|
| **10 (a)** | [1 mark] A box with two whiskers drawn with at least 3 correct values<br>[1 mark] Fully correct | **2** |

**Question 10 (a) model answer**



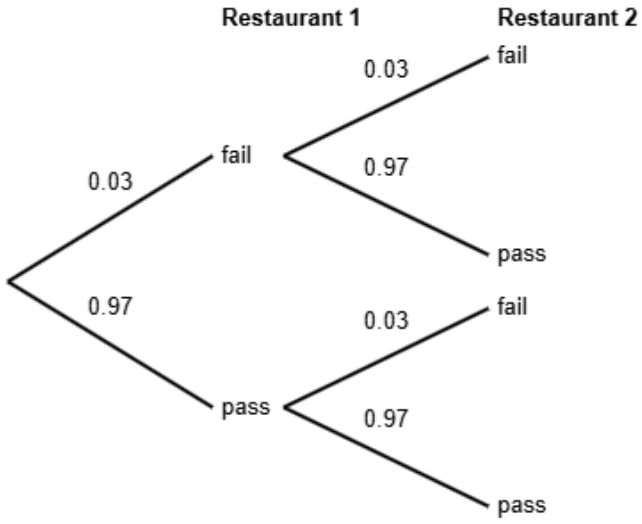

| Question | Mark Scheme | Mark |
|---|---|---|
| **10 (b)** | [1 mark] Correct comparison of the medians<br>[1 mark] Correct comparison of the IQR/range<br>[1 mark] Correct comparison of the skews<br>[1 mark] Correct contextual interpretation comparing medians or IQR/ranges or skew | **4** |

**Question 10 (b) model answer**

The median satisfaction scores for online customers is lower than in-store customers. The IQR for the satisfaction scores of the online customers is greater than in-store customers. The skew for the satisfaction scores of the online customers is symmetrical and the skew for the in-store customers is negative. The online customers on average have lower satisfaction scores than the in-store customers.

| Question | Mark Scheme | Mark |
|---|---|---|
| **11 (a)** | [1 mark] 0.97 in correct position for Restaurant 1.<br>[1 mark] 0.03, 0.97, 0.03 and 0.97 in correct positions for Restaurant 2 . | **2** |

**Question 11 (a) model answer**




| Question | Mark Scheme | Mark |
|---|---|---|
| **11 (b)** | [1 mark] 0.9409 | **2** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **11 (c)** | [1 mark] for one correct product using their ‘0.97’ or subtracting a not-wanted product from 1<br>[1 mark] for 0.0582 or 5.82%<br>[1 mark] for ‘correct’ ft probability and conclusion based on their probability | **3** |

**Question 11 (c) model answer**

$$\begin{aligned} \text{P(fail AND pass)} &= 0.03 \times 0.97 \\ &= 0.0291 \\ \text{P(exactly one restaurant outcome is fail)} &= 0.0291 \times 2 \\ &= 0.0582 \\ 0.0582 &= 5.82\% \\ 5.82\% &< 6\% \end{aligned}$$

The probability that exactly one restaurant outcome is fail is less than 6%, so Emma is correct.

| Question | Mark Scheme | Mark |
|---|---|---|
| **12 (a)** | [1 mark] 3 desks has the highest frequency. | **1** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **12 (b)** | [3 marks] all values correct (6, 11, 37, 20, 11)<br>**OR**<br>[2 marks] one value correct<br>**OR**<br>[1 mark] evidence of correct calculation ( e.g. $\frac{1}{20}$ **or** 20 **or** $\frac{1700}{85}$ **or** $\frac{85}{1700}$ ) | **3** |

**Question 12 (b) model answer**

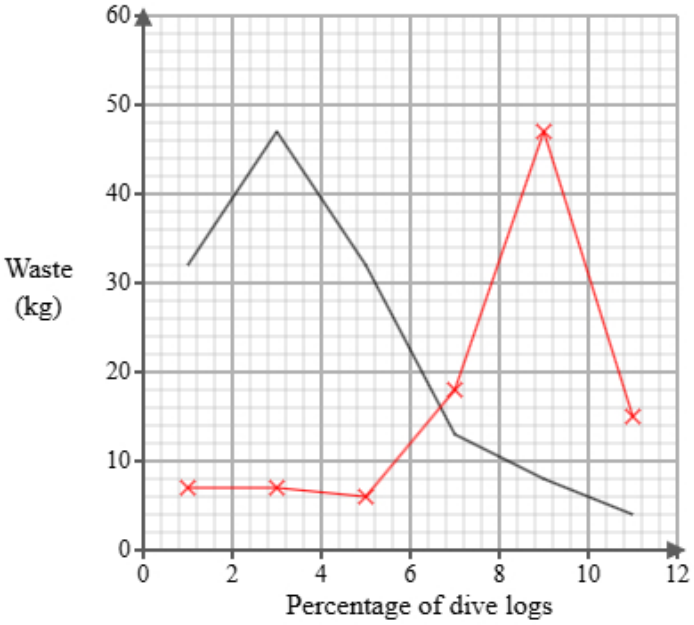
$$\frac{1700}{85} = 20$$

| number of desks | number of offices in the sample |
|---|---|
| 1 | $120 \div 20 = 6$ |
| 2 | $220 \div 20 = 11$ |
| 3 | $740 \div 20 = 37$ |
| 4 | $400 \div 20 = 20$ |
| 5 or more | $220 \div 20 = 11$ |

| Question | Mark Scheme | Mark |
|---|---|---|
| **12 (c)** | [1 mark] Use a sampling frame for each strata<br>[1 mark] select office spaces randomly<br>[1 mark] description of method of random selection (how random numbers can be used) | **3** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **13** | **Part i**<br>[2 marks] fully correct frequency polygon joined with straight lines<br>**OR**<br>[1 mark] correct points not joined with straight lines **or** 3 correct points joined with straight lines<br><br>**Part ii**<br>[1 mark] the distribution of metal waste collected by divers is positively skewed whereas the distribution of plastic waste collected by divers is negatively skewed<br>[1 mark] this means that the metal waste collected by divers was mainly at the lower end of the distribution and the plastic waste collected by divers was mainly at the upper end of the distribution | **4** |

**Question 13 model answer**



| Question | Mark Scheme | Mark |
|---|---|---|
| **14** | [1 mark] $\frac{70}{65} \times 100$ **or** $\frac{110}{65} \times 100$ **or** $65 \times \frac{130}{100}$ **or** $65 \times \frac{160}{100}$<br>[1 mark] 107.69… **or** 84.5<br>[1 mark] 169.23… **or** 104<br>[1 mark] between Jan 1990 and Jan 2000 the change in price was less than the CPI<br>[1 mark] between Jan 1990 and Jan 2010 the change in price was more than the CPI | **5** |

| Question | Mark Scheme | Mark |
|---|---|---|
| **15** | [1 mark each] **maximum 5 marks**<br>+ both boats decrease in resale price as the engine hours used increase<br>+ brand A reduces in resale price by £200 per engine hour<br>+ brand B reduces in resale price by £150 per engine hour<br>+ brand A reduces in resale price more per engine hour than brand B<br>+ brand B has a greater initial resale price<br>+ a comparison between the brands for a specific engine hours used | **5** |