

Cambridge IGCSE Maths 0580 Transformations, Vectors, Probability and Statistics Practice Exam: Mark Scheme

Cambridge IGCSE Mathematics (0580), Core and Extended · 25 questions · 50 marks

- M marks are for a correct method; A marks for an accurate answer that follows a correct method; B marks are independent of method.
- Accept any correct method that reaches a correct answer, unless the question says which method to use.
- Practise these topics online with instant feedback: igcsemathrevision.com/igcse-unit.html?course=cie0580&unit=7

Section A: no calculator

Question 1

1 mark

B1 any non-numerical category, e.g. colour, make, type of fuel

Final answer: e.g. colour (or make, or type of fuel)

Question 2

1 mark

B1 e.g. the sample is small, or people at a gym are not typical of the whole town (biased sample)

Final answer: the sample is small and biased (people at a gym are more likely to exercise)

Question 3

1 mark

B1 negative

Final answer: negative correlation

Question 4

2 marks

B1 (a) (7, -3)

B1 (b) (-3, 9)

Final answer: (a) (7, -3) (b) (-3, 9)

Question 5

2 marks

B1 (a) 5/10 oe

B1 (b) 8/10 oe

Final answer: (a) $\frac{1}{2}$ (b) $\frac{4}{5}$

Question 6

2 marks

B1 (a) $22/50 = 0.44$

B1 (b) 150

Final answer: (a) 0.44 (b) 150



Question 7**2 marks****B1** (a) HH, HT, TH, TT**B1** (b) $\frac{1}{4}$ **Final answer:** (a) HH, HT, TH, TT (b) $\frac{1}{4}$ **Question 8****2 marks****M1** $50 \div 4$ **A1** 12.5**Final answer:** 12.5**Question 9****1 mark****B1** time can take any value in a range; it is measured and only rounded to the nearest second**Final answer:** time is measured and can take any value; it is only rounded for recording**Question 10****1 mark****B1** 50 is outside the range of the data (extrapolation); the pattern may not continue**Final answer:** $x = 50$ is outside the range of the data, so the trend may not continue**Question 11****2 marks****B2** (3, 3), (6, 3), (3, 9) (B1 for two correct)**Final answer:** (3, 3), (6, 3), (3, 9)**Question 12****2 marks****M1** $1 - (0.2 + 0.35 + 0.15)$ **A1** 0.3**Final answer:** 0.3**Question 13****2 marks****B1** (a) 60**B1** (b) 15**Final answer:** (a) 60 (b) 15**Question 14****2 marks****B1** (a) 2**B1** (b) 1.5**Final answer:** (a) 2 (b) 1.5

Question 15**2 marks**

M1 $3\frac{1}{4} \times 12 (= 39)$ and $1\frac{3}{4} \times 12 (= 21)$, or $1\frac{1}{2} \times 12$

A1 18

Final answer: 18

Question 16**3 marks**

M1 0.4×0.3 or 0.6×0.7

A1 (a) 0.12

A1 (b) 0.42

Final answer: (a) 0.12 (b) 0.42

Question 17**3 marks**

B1 (a) swimming (20)

M1 (b) $12 \div 30$

A1 (b) $\frac{2}{5}$

Final answer: (a) swimming (b) $\frac{2}{5}$

Question 18**2 marks**

B1 the line does not need to pass through the origin

B1 there should be roughly equal numbers of points on each side of the line (it should follow the trend of the points)

Final answer: it need not pass through the origin; it should have points on both sides and follow the trend

Question 19**3 marks**

B3 (a) discrete (b) continuous (c) categorical (d) discrete (e) continuous (f) categorical (B2 for 4 or 5 correct, B1 for 2 or 3 correct)

Final answer: (a) discrete (b) continuous (c) categorical (d) discrete (e) continuous (f) categorical

Question 20**3 marks**

B1 (a) mean 2206

B1 (a) median 1280

B1 (b) the mean is raised by one very large value (6000); four of the five workers earn between 1200 and 1300, close to the median, and none of them earns near the mean

Final answer: (a) mean \$2206, median \$1280 (b) the mean is distorted by the one large value

Question 21**3 marks**

M1 $360 - 105 - 150 (= 105)$

M1 their $105/360 \times 240$

A1 70

Final answer: 70



Section B: calculator allowed

Question 22

2 marks

B1 (a) $\frac{2}{11}$

B1 (b) $\frac{4}{11}$

Final answer: (a) $\frac{2}{11}$ (b) $\frac{4}{11}$

Question 23

2 marks

B1 (a) 0.25 oe

B1 (b) 125

Final answer: (a) 0.25 (b) 125

Question 24

2 marks

M1 $8 + 5 = 13$ like dogs

A1 $\frac{13}{30}$

Final answer: $\frac{13}{30}$

Question 25

2 marks

M1 $6 \times 8 - (5 + 9 + 11 + 6 + 7)$

A1 10

Final answer: 10

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