2.13 Frequency Polygons: 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 The grouped frequency table shows data about time in minutes, x. Class intervals and frequencies: $0 < x \leq 10$: 2; $10 < x \leq 20$: 8; $20 < x \leq 30$: 6; $30 < x \leq 40$: 2; $40 < x \leq 50$: 3. Work out how many values are greater than 30.

(Total for Question 1 is 2 marks)

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2 The grouped frequency table shows data about time in minutes, x, for a group of people. Class intervals and frequencies: $0 < x \leq 10$: 11; $10 < x \leq 20$: 9; $20 < x \leq 30$: 3; $30 < x \leq 40$: 6. Write down the coordinates of the points you would plot to draw a frequency polygon.

(Total for Question 2 is 2 marks)

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3 A frequency table shows the number of pencils sold each day last week.
Length of sale period (minutes): 0-5, 5-10, 10-15, 15-20
Frequency: 2, 5, 8, 5
Write down the midpoint of the class 10-15.

(Total for Question 3 is 1 mark)

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4 A frequency table for number of goals scored by a school team in matches is shown.
Goals: 0-1, 2-3, 4-5
Frequencies: 3, 6, 1
Find the modal class.

(Total for Question 4 is 2 marks)

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5 A GP surgery in Leeds recorded the ages, in years, of patients attending a flu clinic in grouped classes.
Age (years): 0-20, 20-40, 40-60, 60-80
Frequency: 8, 15, x, 11
The total number of patients was 50. Calculate the value of x.

(Total for Question 5 is 2 marks)

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Mark scheme · 2.13 Frequency Polygons: 10-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

adds the frequencies of the classes above 30	**M1**
5 cao	**A1**

Answer: 5

Question 2

uses midpoints of the class intervals	**M1**
(5, 11), (15, 9), (25, 3), (35, 6) cao	**A1**

Answer: (5, 11), (15, 9), (25, 3), (35, 6)

Question 3

12.5 cao	**B1**

Answer: 12.5

Question 4

identify largest frequency 6	**M1**
2-3 cao	**A1**

Answer: 2-3

Question 5

adds known frequencies 8 + 15 + 11 (= 34) oe, or 50 - 34 seen	**M1**
16 cao	**A1**

Answer: 16

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