2.19 Population Pyramids: Test Pack

EDEXCEL 1ST0 · Calculator allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 90 people were asked about fruit chosen at a tuck shop. The results are in the table.

Choice	Frequency
orange	2
grapes	18
pear	39
banana	31

A pie chart is to be drawn. Work out the angle for each choice. Show that the angles add up to 360 degrees.

(Total for Question 1 is 4 marks)

© Revision Library | revisionlibrary.co.uk

2 60 people were asked about how a company's staff spend lunch breaks. The results are in the table.

Choice	Frequency
outside	6
shops	30
desk	8
gym	16

A pie chart is to be drawn. Work out the angle for each choice. Show that the angles add up to 360 degrees.

(Total for Question 2 is 4 marks)

---

3 A pie chart shows types of film chosen at a cinema. The angles of the sectors are in the table.

Choice	Angle
action	54 degrees
comedy	150 degrees
horror	102 degrees
cartoon	54 degrees

50 people chose comedy.
(a) Work out how many people were asked altogether.
(b) Work out how many people chose horror.

(Total for Question 3 is 4 marks)

© Revision Library | revisionlibrary.co.uk

4 A pie chart shows how pupils travel to school. The angles of the sectors are in the table.

Choice	Angle
walk	36 degrees
car	96 degrees
bus	108 degrees
cycle	60 degrees
train	60 degrees

8 people chose car.

(a) Work out how many people were asked altogether.

(b) Work out how many people chose bus.

(Total for Question 4 is 4 marks)

---

5 90 people were asked about how pupils travel to school. The results are in the table.

Choice	Frequency
walk	5
car	3
bus	38
cycle	36
train	8

A pie chart is to be drawn. Work out the angle for each choice. Show that the angles add up to 360 degrees.

(Total for Question 5 is 4 marks)

© Revision Library | revisionlibrary.co.uk

6 72 people were asked about types of film chosen at a cinema. The results are in the table.

Choice	Frequency
action	5
drama	29
cartoon	9
horror	29

A pie chart is to be drawn. Work out the angle for each choice. Show that the angles add up to 360 degrees.

(Total for Question 6 is 4 marks)

---

7 A pie chart shows how pupils travel to school. The angles of the sectors are in the table.

Choice	Angle
walk	180 degrees
train	40 degrees
cycle	50 degrees
car	90 degrees

9 people chose car.

(a) Work out how many people were asked altogether.

(b) Work out how many people chose walk.

(Total for Question 7 is 4 marks)

© Revision Library | revisionlibrary.co.uk

8 A pie chart shows favourite sports of club members. The angles of the sectors are in the table.

Choice	Angle
rugby	120 degrees
tennis	36 degrees
football	132 degrees
swimming	72 degrees

6 people chose swimming.

(a) Work out how many people were asked altogether.

(b) Work out how many people chose rugby.

(Total for Question 8 is 4 marks)

---

9 A pie chart shows pets owned by families. The angles of the sectors are in the table.

Choice	Angle
rabbit	48 degrees
fish	96 degrees
dog	18 degrees
bird	36 degrees
cat	162 degrees

27 people chose cat.

(a) Work out how many people were asked altogether.

(b) Work out how many people chose rabbit.

(Total for Question 9 is 4 marks)

© Revision Library | revisionlibrary.co.uk

10 72 people were asked about types of film chosen at a cinema. The results are in the table.

Choice	Frequency
cartoon	6
horror	10
comedy	9
drama	47

A pie chart is to be drawn. Work out the angle for each choice. Show that the angles add up to 360 degrees.

(Total for Question 10 is 4 marks)

---

11 24 people were asked about how a company's staff spend lunch breaks. The results are in the table.

Choice	Frequency
canteen	8
gym	7
desk	3
outside	6

A pie chart is to be drawn. Work out the angle for each choice. Show that the angles add up to 360 degrees.

(Total for Question 11 is 4 marks)

© Revision Library | revisionlibrary.co.uk

12 A pie chart shows pets owned by families. The angles of the sectors are in the table.

Choice	Angle
dog	152 degrees
fish	76 degrees
rabbit	88 degrees
cat	44 degrees

22 people chose rabbit.

(a) Work out how many people were asked altogether.

(b) Work out how many people chose cat.

(Total for Question 12 is 4 marks)

© Revision Library | revisionlibrary.co.uk

13 A pie chart shows favourite sports of club members. The angles of the sectors are in the table.

Choice	Angle
football	84 degrees
swimming	24 degrees
netball	96 degrees
tennis	156 degrees

4 people chose swimming.
(a) Work out how many people were asked altogether.
(b) Work out how many people chose netball.

(Total for Question 13 is 4 marks)

---

14 A pie chart shows how a company's staff spend lunch breaks. The angles of the sectors are in the table.

Choice	Angle
desk	72 degrees
shops	108 degrees
outside	72 degrees
canteen	108 degrees

6 people chose outside.
(a) Work out how many people were asked altogether.
(b) Work out how many people chose canteen.

(Total for Question 14 is 4 marks)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 2.19 Population Pyramids: Test Pack

Question 1

360 / 90 = 4 degrees per person	**M1**
at least 3 angles correct	**A1**
all angles 8, 72, 156, 124 cao	**A1**
angles sum to 360	**B1**

Answer: 8, 72, 156, 124

Question 2

360 / 60 = 6 degrees per person	**M1**
at least 3 angles correct	**A1**
all angles 36, 180, 48, 96 cao	**A1**
angles sum to 360	**B1**

Answer: 36, 180, 48, 96

Question 3

50 / 150 or 360 / 150 x 50	**M1**
120 cao	**A1**
102 x 120 / 360	**M1**
34 cao	**A1**

Answer: (a) 120; (b) 34

Question 4

8 / 96 or 360 / 96 x 8	**M1**
30 cao	**A1**
108 x 30 / 360	**M1**
9 cao	**A1**

Answer: (a) 30; (b) 9

Question 5

360 / 90 = 4 degrees per person	**M1**
at least 3 angles correct	**A1**
all angles 20, 12, 152, 144, 32 cao	**A1**
angles sum to 360	**B1**

Answer: 20, 12, 152, 144, 32

Question 6

360 / 72 = 5 degrees per person	**M1**
at least 3 angles correct	**A1**
all angles 25, 145, 45, 145 cao	**A1**
angles sum to 360	**B1**

Answer: 25, 145, 45, 145

Question 7

9 / 90 or 360 / 90 x 9	**M1**
36 cao	**A1**
180 x 36 / 360	**M1**
18 cao	**A1**

Answer: (a) 36; (b) 18

Question 8

6 / 72 or 360 / 72 x 6	**M1**
30 cao	**A1**
120 x 30 / 360	**M1**
10 cao	**A1**

Answer: (a) 30; (b) 10

Question 9

27 / 162 or 360 / 162 x 27	**M1**
60 cao	**A1**
48 x 60 / 360	**M1**
8 cao	**A1**

Answer: (a) 60; (b) 8

Question 10

360 / 72 = 5 degrees per person	**M1**
at least 3 angles correct	**A1**
all angles 30, 50, 45, 235 cao	**A1**
angles sum to 360	**B1**

Answer: 30, 50, 45, 235

Question 11

360 / 24 = 15 degrees per person	**M1**
at least 3 angles correct	**A1**
all angles 120, 105, 45, 90 cao	**A1**
angles sum to 360	**B1**

Answer: 120, 105, 45, 90

Question 12

22 / 88 or 360 / 88 x 22	**M1**
90 cao	**A1**
44 x 90 / 360	**M1**
11 cao	**A1**

Answer: (a) 90; (b) 11

Question 13

4 / 24 or 360 / 24 x 4	**M1**
60 cao	**A1**
96 x 60 / 360	**M1**
16 cao	**A1**

Answer: (a) 60; (b) 16

Question 14

6 / 72 or 360 / 72 x 6	**M1**
30 cao	**A1**
108 x 30 / 360	**M1**
9 cao	**A1**

Answer: (a) 30; (b) 9

© Revision Library | revisionlibrary.co.uk