

Year 9 Class 25 questions

Q1

There are 10 people in a futsal team. Their ages are: 13, 11, 12, 13, 13, 12, 12, 11, 13, 12.

What is the mean age?

Q2

Find the median of this set of scores.

1.5 2.1 2.4 3 3.6 4 4.5 5.2

Q3

Points per netball game

| | |
|---|-------------|
| 4 | 1 3 4 4 |
| 5 | 2 2 5 6 7 |
| 6 | 3 3 3 5 6 9 |
| 7 | 2 |

What is the range?

Q4

Construct a stem-and-leaf plot from the data set. Then match the correct plot with yours.

| | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|
| 79 | 54 | 70 | 83 | 59 | 44 | 64 | 74 | 73 | 82 | 87 |
| 54 | 62 | 45 | 75 | 52 | 61 | 50 | 67 | 57 | 68 | 75 |

$$\begin{array}{l|l} 4 & 4\ 5 \\ 5 & 0\ 2\ 2\ 4\ 7\ 9 \\ 6 & 1\ 1\ 4\ 8\ 8 \\ 7 & 0\ 3\ 4\ 5\ 9\ 9 \\ 8 & 2\ 5\ 7 \end{array}$$

$$\begin{array}{l|l} 4 & 4\ 5 \\ 5 & 0\ 2\ 4\ 4\ 7\ 9 \\ 6 & 1\ 2\ 4\ 7\ 8 \\ 7 & 0\ 3\ 4\ 5\ 5\ 9 \\ 8 & 2\ 3\ 7 \end{array}$$

$$\begin{array}{l|l} 4 & 4\ 5 \\ 5 & 0\ 2\ 3\ 4\ 8\ 9 \\ 6 & 1\ 2\ 2\ 5\ 8 \\ 7 & 0\ 1\ 4\ 5\ 8\ 9 \\ 8 & 2\ 4\ 7 \end{array}$$

$$\begin{array}{l|l} 4 & 4\ 6 \\ 5 & 0\ 2\ 3\ 3\ 7\ 8 \\ 6 & 1\ 2\ 4\ 5\ 7 \\ 7 & 0\ 3\ 4\ 5\ 6\ 9 \\ 8 & 2\ 6\ 7 \end{array}$$

Q5

Choose the best method for collecting data to determine the number of people attending a concert.

census sample

Q6

The "Flying Saucers" record their best discus results:

32.1 m 35.6 m 28.4 m 32.3 m 35.9 m

42.1 m 33.7 m 24.1 m 26.4 m 27.3 m

Find the mean length jumped. (Answer to 1 decimal place)

Mean =

Q7

Mia records the number of plastic bottles she collects for recycling each week.

36 24 37 18 25 42 25

Find the mean number of bottles collected each week. (Answer to 1 decimal place)

Mean =

Q8

Find the median of this set of scores.

10 7 15 6 9 10

Q9

Find the median of this set of scores.

15 6 17 6 9 12 11 15

Q10

Strawberry flavoured chocolates in a pack

| | |
|---|---------------|
| 0 | 7 7 8 9 |
| 1 | 0 5 5 6 6 6 7 |
| 2 | 1 3 6 |
| 3 | 2 |

What is the median?

Q11

Classroom size (square metres)

| | |
|---|-------------|
| 3 | 2 2 5 6 9 |
| 4 | 0 0 4 4 4 5 |
| 5 | 2 5 |

What is the median classroom size?

 m²

Q12

Construct a stem-and-leaf plot from the data set. Then match the correct plot with yours.

| | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|-----|-----|----|
| 104 | 73 | 95 | 66 | 82 | 89 | 82 | 71 | 100 | 106 | 87 |
| 76 | 95 | 70 | 89 | 94 | 84 | 99 | 71 | 97 | 78 | 65 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 1 3 6 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 5 5 7 9 |
| 10 | 0 4 6 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 1 3 7 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 5 5 7 8 |
| 10 | 0 4 6 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 2 3 6 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 4 5 7 9 |
| 10 | 0 4 6 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 1 5 6 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 4 5 8 9 |
| 10 | 0 4 6 |

Q13

Construct a stem-and-leaf plot from the data set. Then match the correct plot with yours.

| | | | | | | | | | | |
|----|----|----|----|-----|-----|----|-----|----|----|----|
| 97 | 84 | 70 | 98 | 104 | 100 | 65 | 71 | 78 | 89 | 87 |
| 71 | 95 | 94 | 89 | 82 | 66 | 82 | 106 | 77 | 73 | 95 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 1 3 6 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 5 5 7 9 |
| 10 | 0 4 6 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 1 3 7 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 5 5 7 8 |
| 10 | 0 4 6 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 2 3 6 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 4 5 7 9 |
| 10 | 0 4 6 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 1 5 6 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 4 5 8 9 |
| 10 | 0 4 6 |

Q14

What type of sampling is being used?

Surveying 50 out of 100 boys and 40 out of 80 girls.

- Stratified
- Random
- Systematic

Q15

What type of sampling is being used?

Checking 60 out of 300 plain chip packets and 40 of 200 salt and vinegar chip packets.

- Systematic
- Random
- Stratified

Q16

In his first 4 games of basketball, Nick scores 18, 22, 20 and 20 points.

How many points does he need to score in his 5th game to have a mean of 21 points per game?

Q17

Three packets of nails weigh 850g, 1.25kg and 950g respectively.
When a fourth bag is added the mean weight is 975 g.

What was the weight of the fourth bag?

Q18

The mean height of 5 basketball players is 175cm.
When a 6th player was added to the team, the mean height increased to 177 cm.

How tall was the 6th player?

Q19

If the median of this set is 9, find A.

11 20 3 16 A 6

A =

Q20

If the median of this set is 10.5, find A.

14 5 A 10 14 16 5 8

A =

Q21

If the median of this set is 15, find A.

18 9 A 9 12 16 20 18

A =

Q22

| | | | | | | | | | | | |
|---|--|---|---|---|---|---|---|---|---|---|---|
| 5 | | 0 | 0 | 1 | 2 | 3 | | | | | |
| 6 | | 0 | 2 | 2 | 3 | 4 | 4 | 4 | 5 | | |
| 7 | | 0 | 1 | 1 | 1 | 2 | 3 | 3 | 8 | 8 | 9 |
| 8 | | 2 | 3 | 3 | | | | | | | |

Find the mean. (Answer to one decimal place)

Find the mode.

64 64 and 71 71 71 and 78

Find the range.

Find the median.

Q23

| | | | | | | | | | | |
|----|--|---|---|---|---|---|---|---|---|---|
| 8 | | 0 | 0 | 1 | | | | | | |
| 9 | | 0 | 2 | 2 | 3 | 3 | 8 | | | |
| 10 | | 0 | 4 | 4 | 6 | 6 | 8 | 9 | 9 | 9 |
| 11 | | 1 | 2 | 2 | 4 | | | | | |

Find the mean. (Answer to one decimal place)

Find the mode.

112 109 82 and 83 106 and 109

Find the range.

Find the median.

Q24

| | |
|---|---------------|
| 3 | 3 4 5 |
| 4 | 1 2 3 8 |
| 5 | 0 0 0 4 5 5 6 |
| 6 | 0 1 1 3 3 |
| 7 | 0 |

Find the mean. (Answer to one decimal place)

Find the mode.

63 50 50 and 55 61

Find the range.

Find the median.

Q25

Construct a stem-and-leaf plot from the data set. Then match the correct plot with yours.

| | | | | | | | | | | |
|----|----|-----|----|----|----|----|----|-----|-----|----|
| 75 | 82 | 104 | 84 | 87 | 89 | 70 | 95 | 100 | 71 | 66 |
| 65 | 71 | 99 | 94 | 76 | 89 | 98 | 82 | 78 | 106 | 94 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 1 3 6 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 5 5 7 9 |
| 10 | 0 4 6 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 1 3 7 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 5 5 7 8 |
| 10 | 0 4 6 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 2 3 6 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 4 5 7 9 |
| 10 | 0 4 6 |

| | |
|----|-------------|
| 6 | 5 6 |
| 7 | 0 1 1 5 6 8 |
| 8 | 2 2 4 7 9 9 |
| 9 | 4 4 5 8 9 |
| 10 | 0 4 6 |

Q26

Construct a stem-and-leaf plot from the data set. Then match the correct plot with yours.

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|
| 93 | 98 | 104 | 84 | 115 | 124 | 114 | 83 | 109 | 102 | 107 |
| 113 | 108 | 118 | 116 | 123 | 90 | 91 | 96 | 102 | 120 | 91 |

| | |
|----|-------------|
| 8 | 3 4 |
| 9 | 0 1 2 3 6 8 |
| 10 | 2 2 4 7 8 9 |
| 11 | 2 4 5 6 8 |
| 12 | 0 3 4 |

| | |
|----|-------------|
| 8 | 3 4 |
| 9 | 0 0 2 3 7 8 |
| 10 | 2 2 4 7 8 9 |
| 11 | 1 3 4 6 8 |
| 12 | 0 3 4 |

| | |
|----|-------------|
| 8 | 3 4 |
| 9 | 0 1 1 3 6 8 |
| 10 | 2 2 4 7 8 9 |
| 11 | 3 4 5 6 8 |
| 12 | 0 3 4 |

| | |
|----|-------------|
| 8 | 3 4 |
| 9 | 0 1 2 3 6 8 |
| 10 | 2 2 4 6 8 9 |
| 11 | 2 4 5 7 8 |
| 12 | 0 1 4 |

Q27

Construct a stem-and-leaf plot from the data set. Then match the correct plot with yours.

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|
| 108 | 83 | 113 | 90 | 107 | 97 | 93 | 92 | 118 | 120 | 116 |
| 90 | 102 | 109 | 123 | 111 | 84 | 102 | 104 | 124 | 98 | 114 |

| | |
|----|-------------|
| 8 | 3 4 |
| 9 | 0 1 2 3 6 8 |
| 10 | 2 2 4 7 8 9 |
| 11 | 2 4 5 6 8 |
| 12 | 0 3 4 |

| | |
|----|-------------|
| 8 | 3 4 |
| 9 | 0 0 2 3 7 8 |
| 10 | 2 2 4 7 8 9 |
| 11 | 1 3 4 6 8 |
| 12 | 0 3 4 |

| | |
|----|-------------|
| 8 | 3 4 |
| 9 | 0 1 1 3 6 8 |
| 10 | 2 2 4 7 8 9 |
| 11 | 3 4 5 6 8 |
| 12 | 0 3 4 |

| | |
|----|-------------|
| 8 | 3 4 |
| 9 | 0 1 2 3 6 8 |
| 10 | 2 2 4 6 8 9 |
| 11 | 2 4 5 7 8 |
| 12 | 0 1 4 |

Q28

The table shows the number of students at Caboolture High.

| Year | No. of students |
|-------|-----------------|
| 7 | 142 |
| 8 | 152 |
| 9 | 148 |
| 10 | 137 |
| 11 | 115 |
| 12 | 110 |
| Total | 804 |

A stratified random survey of 40 students was conducted:

What percentage of students should be from Year 8?

24.1% 21.4% 16.2% 18.9%

How many Year 9 students should be surveyed?

5 148 7 11

Q29

A school with 630 students is conducting a random survey. Each student is given an identity number from 1 to 630. The number 0.7 is given to identify a student to survey.

What is the identity number of the student to be surveyed?

Q30

A school with 720 students is conducting a random survey. Each student is given an identity number from 1 to 720. The number 0.35 is given to identify a student to survey.

What is the identity number of the student to be surveyed?
