
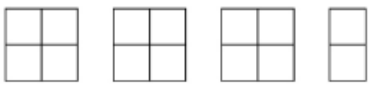




**AQA – Statistics – GCSE Mathematics Paper-1**1. **May/2020/Paper\_1F/No.8**

Here is some information, by ticket type, about the number of people visiting a cinema one week.

Key:  represents 40 people

|                 |  |
|-----------------|--|
| <b>Adults</b>   |  |
| <b>Students</b> |  |
| <b>Children</b> |  |

(a) How many children visited the cinema?

[1 mark]

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Answer \_\_\_\_\_

(b) How many more students than adults visited the cinema?

[2 marks]

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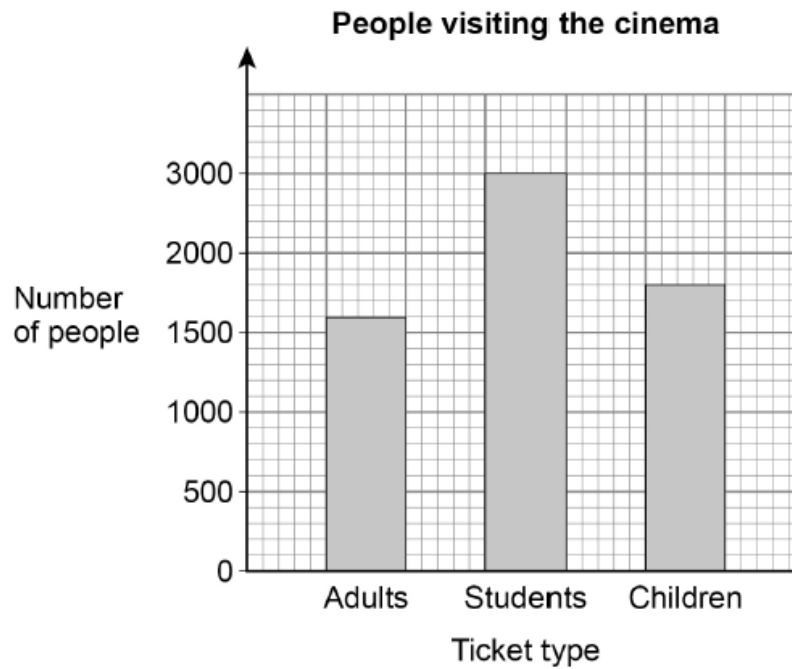


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Answer \_\_\_\_\_

- (c) A bar chart is drawn to show the number of people visiting the cinema one month.

| Ticket type | Number of people |
|-------------|------------------|
| Adults      | 1600             |
| Students    | 3000             |
| Children    | 1800             |



Give **one** criticism of the bar chart.

[1 mark]

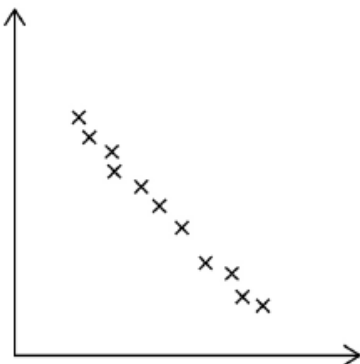
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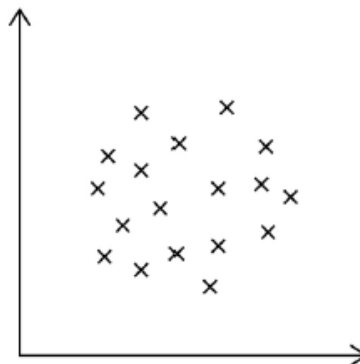
2. May/2020/Paper\_1F/No.20

A and B are scatter graphs.

**Graph A**



**Graph B**



What type of correlation is shown by each graph?

Choose from

Weak positive  
Strong positive  
Weak negative  
Strong negative  
No correlation

**[2 marks]**

Graph A \_\_\_\_\_

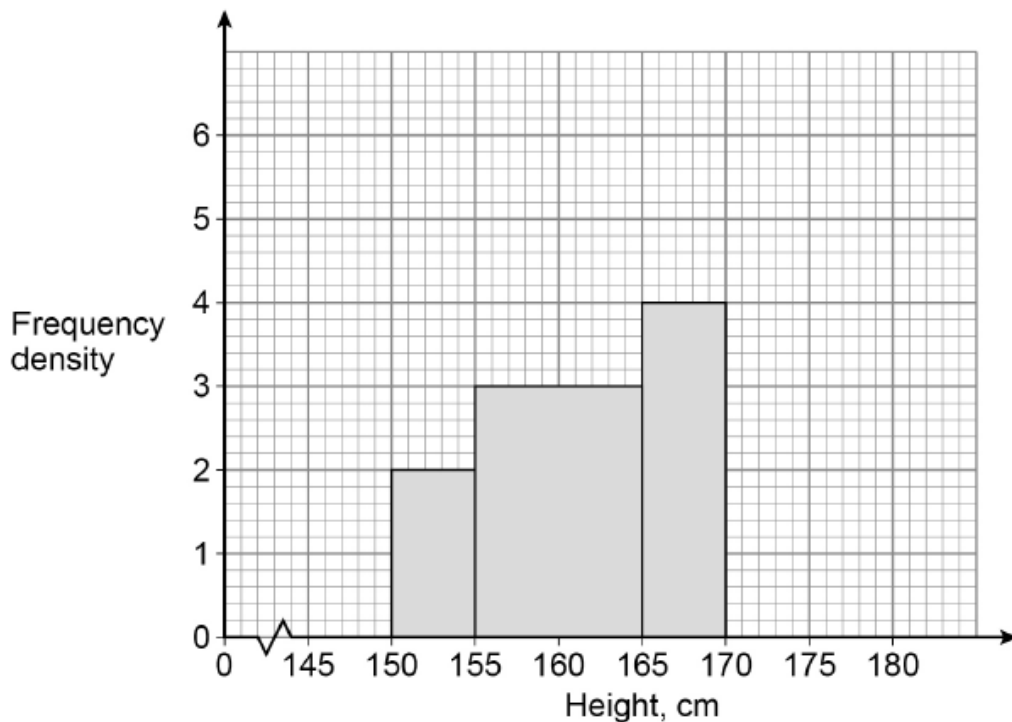
Graph B \_\_\_\_\_

3. May/2020/Paper\_1H/No.25

A histogram is drawn to represent the heights of a sample of women.

Three of the four bars are shown.

The bar for  $170 \text{ cm} \leq \text{height} < 180 \text{ cm}$  is missing.



There are 74 women in the sample.

Complete the histogram.

[4 marks]

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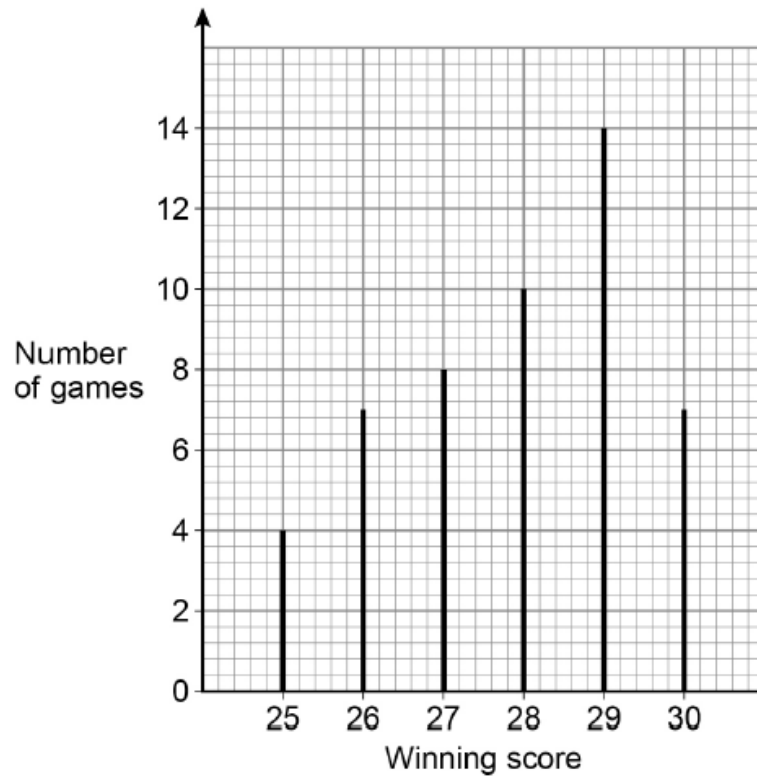


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## 4. June/2019/Paper\_1F/No.8(a)

A game is played 50 times.

The vertical line chart shows the winning scores.



(a) Write down the mode.

[1 mark]

Answer \_\_\_\_\_

## 5. June/2019/Paper\_1F/No.18

Here is some data about the people listening to a radio station one day.

|                  | Percentage | Mean number of hours listening | Range of number of hours listening |
|------------------|------------|--------------------------------|------------------------------------|
| Aged 40 or under | 21         | 1.2                            | 4.5                                |
| Aged 41 or over  | 79         | 6.3                            | 13.9                               |

Compare the data for people aged 40 or under with the data for people aged 41 or over.  
Make **three** comparisons.

**[3 marks]**

Comparison 1 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Comparison 2 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Comparison 3 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## 6. June/2019/Paper\_1H/No.15

Here is some information about the test marks of 120 students.

|                             |                 |                  |                  |                  |                  |
|-----------------------------|-----------------|------------------|------------------|------------------|------------------|
| <b>Mark, <math>m</math></b> | $0 < m \leq 10$ | $10 < m \leq 20$ | $20 < m \leq 30$ | $30 < m \leq 40$ | $40 < m \leq 50$ |
| <b>Frequency</b>            | 20              | 28               | 40               | 20               | 12               |

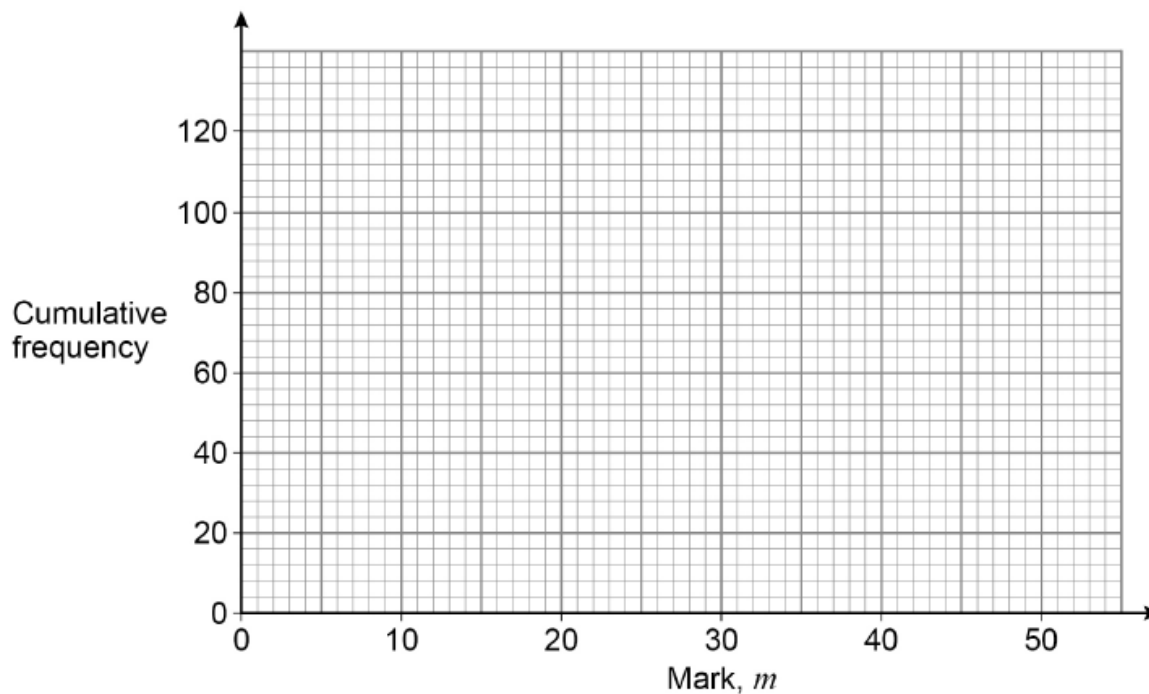
(a) Complete the cumulative frequency table.

[1 mark]

|                             |             |             |             |             |             |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|
| <b>Mark, <math>m</math></b> | $m \leq 10$ | $m \leq 20$ | $m \leq 30$ | $m \leq 40$ | $m \leq 50$ |
| <b>Cumulative frequency</b> | 20          | 48          |             |             |             |

(b) Draw a cumulative frequency graph.

[2 marks]



(c) Students who scored 15 marks or fewer take another test.

Use your graph to estimate how many students take another test.

[2 marks]

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Answer \_\_\_\_\_



## 7. June/2019/Paper\_1H/No.19

You are given that  $4a - 2b = 10$

- (a) Write down the value of  $2a - b$

[1 mark]

Answer \_\_\_\_\_

- (b) Write down the value of  $2b - 4a$

[1 mark]

Answer \_\_\_\_\_

- (c) You are given that  $4a - 2b = 10$  and  $a + c = 3$

Write an expression in  $a$ ,  $b$  and  $c$  that is equal to 23

Give your answer in its simplest form.

You **must** show your working.

[2 marks]

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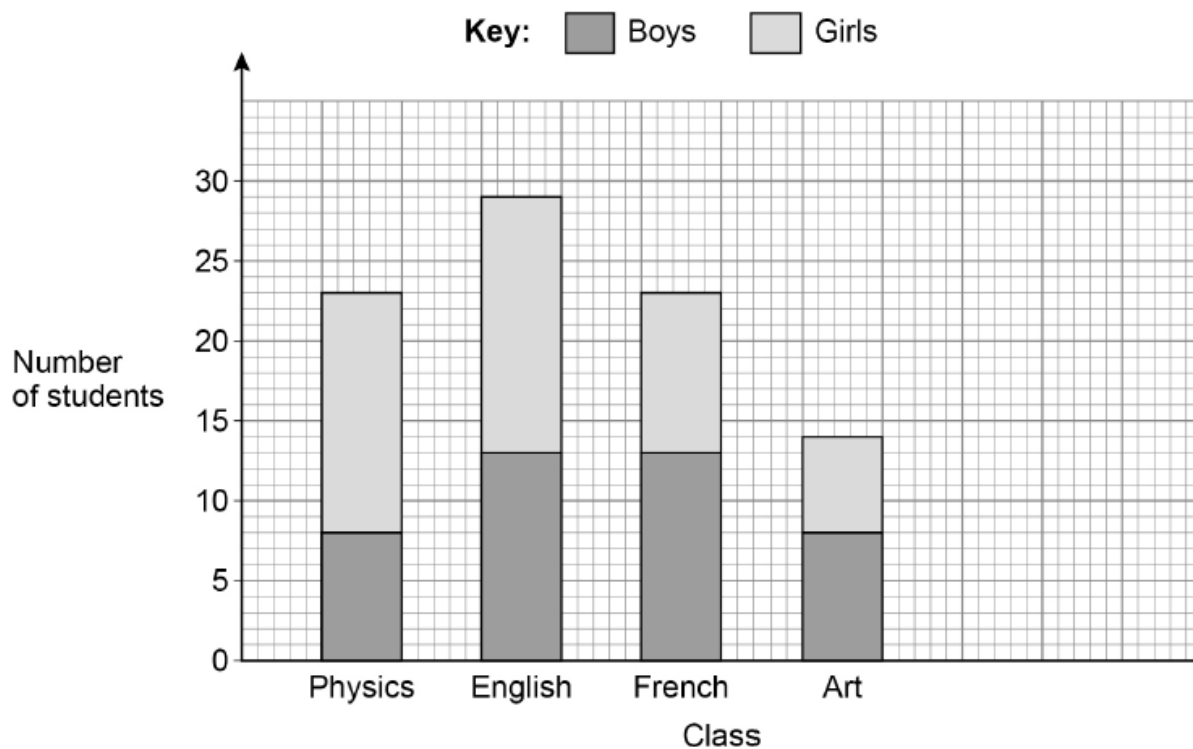
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Answer \_\_\_\_\_

8. Nov/2019/Paper\_1F/No.6

The composite bar chart shows the number of students in some classes.



(a) How many boys are in the Physics class?

[1 mark]

Answer \_\_\_\_\_

(b) How many girls are in the English class?

[1 mark]

\_\_\_\_\_

Answer \_\_\_\_\_

(c) Which **two** classes have the same total number of students?

[1 mark]

Answer \_\_\_\_\_ and \_\_\_\_\_

(d) In the History class

there are 18 students

number of boys = number of girls

Show this information on the bar chart.

[2 marks]

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9. Nov/2019/Paper\_1F/No.23

Which **one** of the following is discrete data?

Circle your answer.

[1 mark]

length of arm

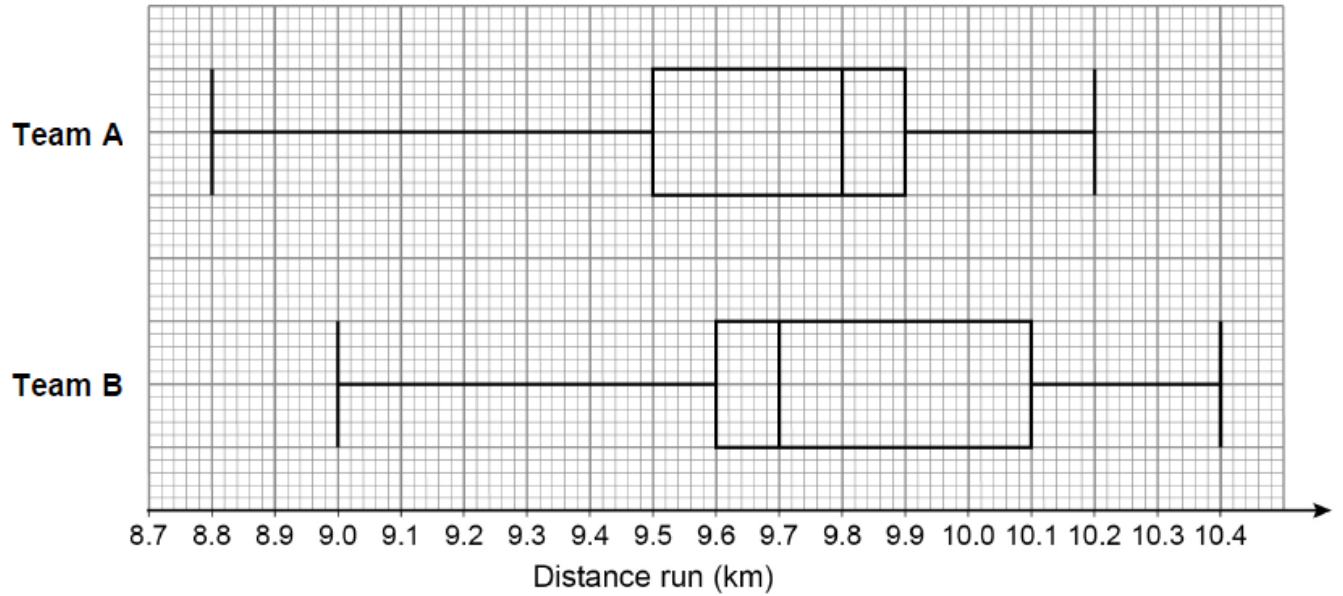
height of door

number of pets

mass of sugar

10. Nov/2019/Paper\_1H/No.19

The box plots represent the distances run by the players in a football match.



(a) On average, which team's players ran further?

Tick a box.

Team A

Team B

Give a reason for your answer.

[1 mark]

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**(b)** The players in Team A ran more consistent distances.

How do the box plots show this?

**[1 mark]**

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