GHS Sorted Past Paper - MC
S1-06 Introduction to Statistics and Statistical Charts

1. [20 - 21 S1 Final Exam - 03] (67%)

3. Which of the following data are continuous?

A. Number of students who wear glasses
B. Sizes of shoes
C. Students' favorite movies
D. Speeds of a train

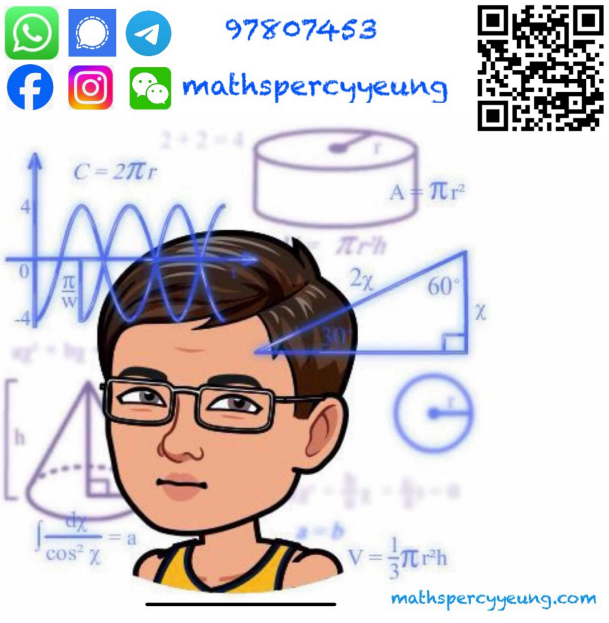
2. [20 - 21 S1 Final Exam - 16] (87%)

16. The stem-and-leaf diagram below shows the distribution of the weight of 20 students in class 1G. If there are 10 students with weight less than or equal to 45 kg, find the values of a and b.

Weight of 20 students in class 1G

Stem (tens)	Leaf (units)
2	0 3 6
3	4 a 4 5 7
4	2 5 b 6 6
5	4 7
6	3

A. $a = 3, b = 5$
B. $a = 3, b = 6$
C. $a = 4, b = 5$
D. $a = 4, b = 6$



3. [22 - 23 S1 Final Exam - 11] (98%)

11. The frequency distribution table below shows the favourite seafood of the students in a S.1 class.

Seafood	Tally
Lobster	~~////~~ ////
Fish	~~////~~ ~~////~~ ////
Crab	~~////~~ ~~////~~ //
Oyster	////

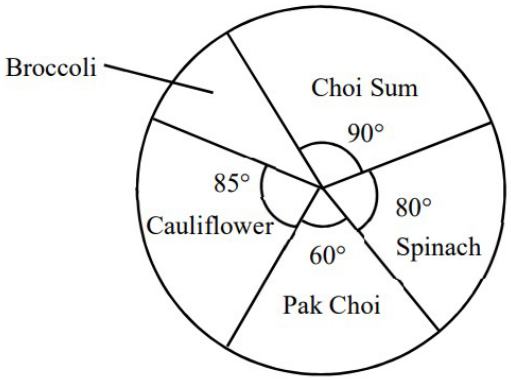
If each student can only choose one kind of seafood, find the total number of students in the S.1 class.

A. 39
B. 40
C. 60
D. 64

4. [22 - 23 S1 Final Exam - 16] (91%)

16. The following pie chart shows the favourite vegetables of a group of elderlies.

Favourite vegetables of a group of elderlies



If 90 elderlies choose broccoli as their favourite vegetable, how many elderlies choose Choi Sum as their favourite vegetable?

A. 90
B. 180
C. 360
D. 720

5. [23 - 24 S1 Final Exam - 09] (70%)

9. Which of the following are continuous data?

I. Height of each student in a class.

II. Time taken by each player to finish the race.

III. Numbers of books in a library.

A. I and II only

B. I and III only

C. II and III only

D. I, II and III

6. [23 - 24 S1 Final Exam - 19] (61%)

19. The following stem-and-leaf diagram shows the distribution of the numbers of hours that 16 people spent on social media last month.

Numbers of hours that 16 people spent on social media last month

Stem (10 hours)	Leaf (1 hour)
2	3 x 4 4 5
3	2 5 6
4	1 3 4 4 6 8
5	x y

Given that $x < y$ and both x and y are integers. Find the least possible difference between the greatest and least numbers of hours that these people spent on social media last month.

A. 30 hours

B. 31 hours

C. 32 hours

D. 33 hours

7. [24 - 25 S1 Final Exam - 06] (61%)

6. Determine whether each of following data is discrete or continuous.

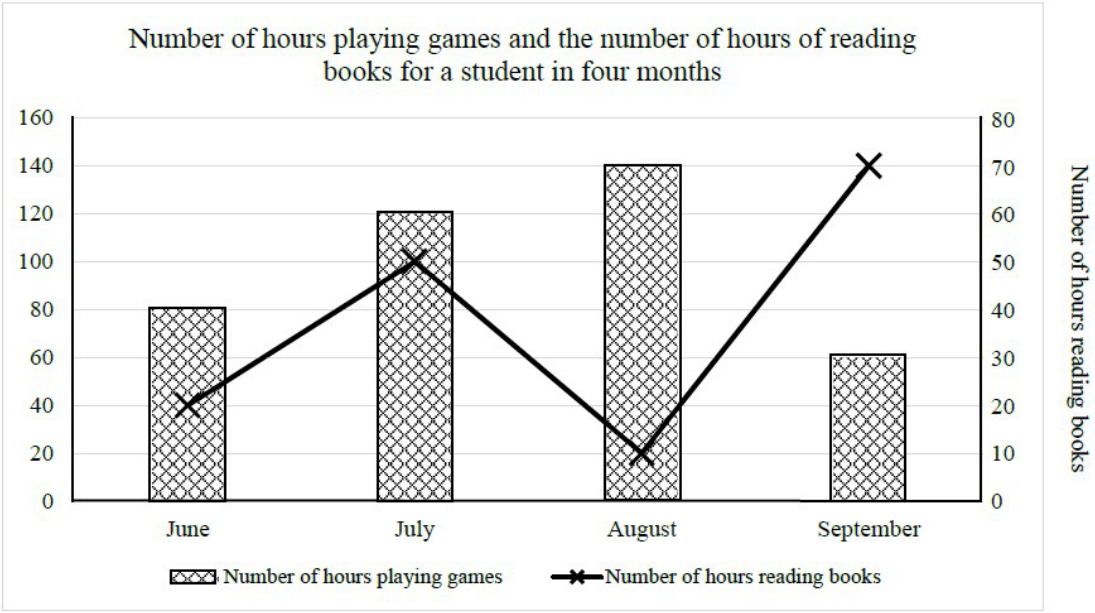
(I) Weight of a pack of salt.

(II) Number of packs of salt sold in a supermarket.

	(I)	**(II)**
A.	Discrete data	Continuous data
B.	Discrete data	Discrete data
C.	Continuous data	Continuous data
D.	Continuous data	Discrete data

8. [24 - 25 S1 Final Exam - 16] (69%)

16. The chart below shows the number of hours playing games and the number of hours of reading books of a student in four months.



At the month with the largest number of hours of playing games, the number of hours of reading books is

A. 10.

B. 20.

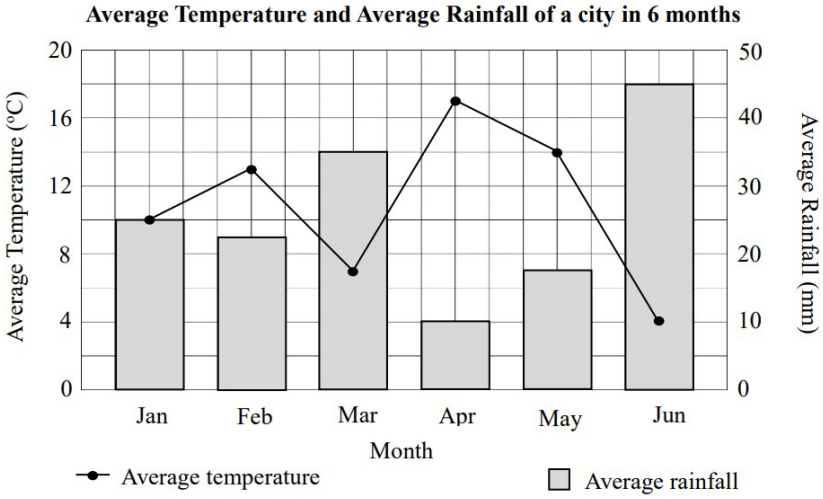
C. 30.

D. 70.

9. [22 - 23 S2 Final Exam - 03] (75%)

3. The statistical chart below shows the average temperature and average rainfall of a city in six months. What is the average temperature of the month with the greatest average rainfall?

A. 4°C
B. 10°C
C. 18°C
D. 45°C



10. [22 - 23 S2 Mid-year Exam - 01] (86%)

1. Which of the following data are continuous?

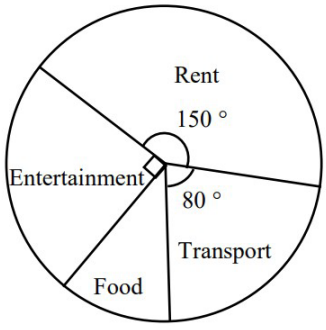
I. Time used to finish a marathon
II. Height of students in a class
III. Number of pens owned by students

A. I and II only
B. I and III only
C. II and III only
D. I, II and III

11. [22 - 23 S2 Mid-year Exam - 10] (88%)

10. The pie chart shows the expenditure of Aggie in November. If she spent $4650 on rent, how much did she spend on food in November?

Expenditure (in $) of Aggie in November



A. $930
B. $1240
C. $2480
D. $11160

GHS Sorted Past Paper - Conventional Questions
S1-06 Introduction to Statistics and Statistical Charts

1. [20 - 21 S1 Final Exam - 08]

8. **Figure 2** shows the average daily temperatures and the sales of electric heaters of a shop from Monday to Friday last week.

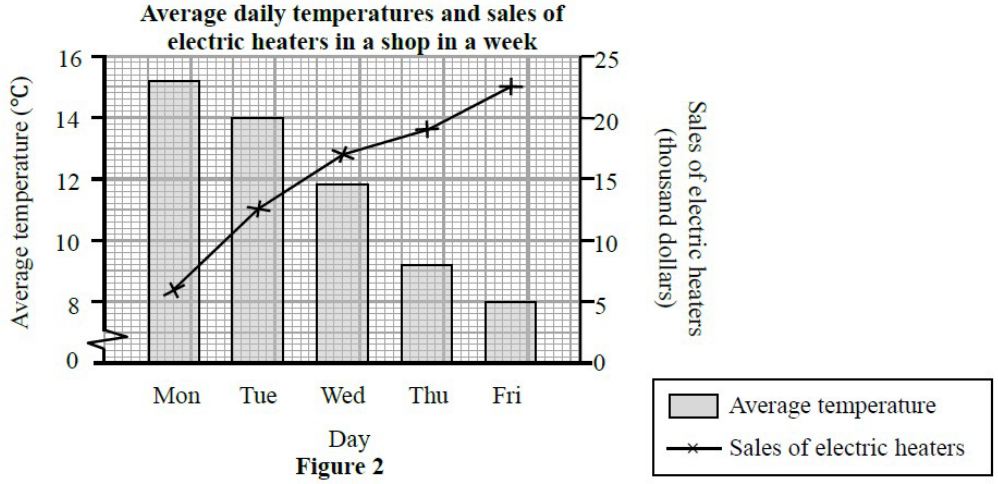


Figure 2

(a) Which day had the greatest sales of the electric heaters? What was the sales on that day? **(1 mark)**

(b) Which day had the lowest average temperature? What was the average temperature on that day? **(1 mark)**

(c) Do you think there was a relation between the average daily temperatures and the sales of electric heaters in the shop? Explain your answer. **(1 mark)**

2. [20 - 21 S1 Final Exam - 19]

19. The following data show the completion time (in s) of Jenny and Kenji in some 200 m races.

Jenny	Kenji
22, 33, 41, 23, 32, 33, 20, 21, 18, 19	32, 32, 17, 22, 42, 29, 35, 41, 33, 42

(a) Complete the back-to-back stem-and-leaf diagram to represent these data. **(2 marks)**

The completion time (s) in some 200 m races

Jenny Leaf (1s)	Stem (10s)	Kenji Leaf (1s)

(b) Based on the diagram drawn in part **(a)**, do you agree that the overall performance of Kenji is better in the 200 m races? Explain your answer. **(1 mark)**

3. [22 - 23 S1 Final Exam - 07] (70%)

7. The statistical chart in **Figure 1** shows the prices of a school bag and the numbers of school bags sold in a shop from January to June.

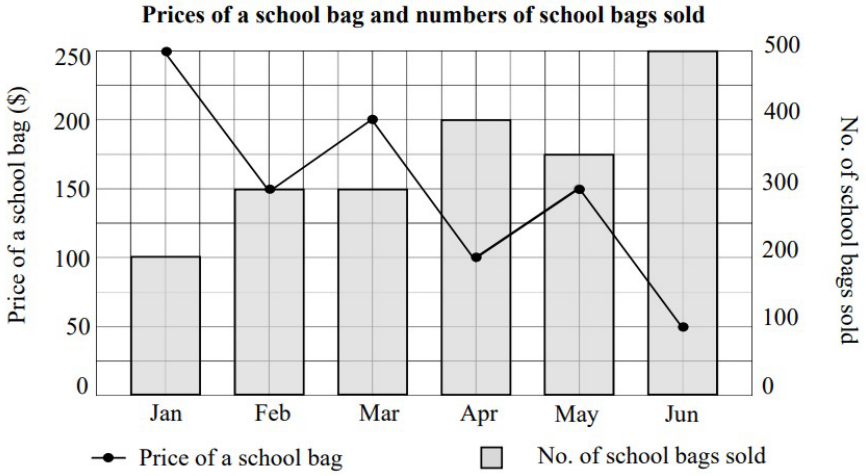


Figure 1

(a) In which month the price of the school bag was the lowest? What was the price of the school bag in that month? **(1 mark)**

(b) In which month the number of school bags sold was 200? **(1 mark)**

(c) Find the difference between the number of school bags sold in February and that in May. **(1 mark)**

4. [22 - 23 S1 Final Exam - 16] (73%)

16. The stem-and-leaf diagram in **Figure 5** shows the time needed to solve a puzzle (in minutes) of 25 S.1 students.

Time needed to solve a puzzle of 25 S.1 students

Stem (10 mins)	Leaf (1 min)
1	*b* 7 8 8
2	0 1 2 4 7 9 *a*
3	1 2 3 3 3 6 8 9
4	3 3 4 6 8 8

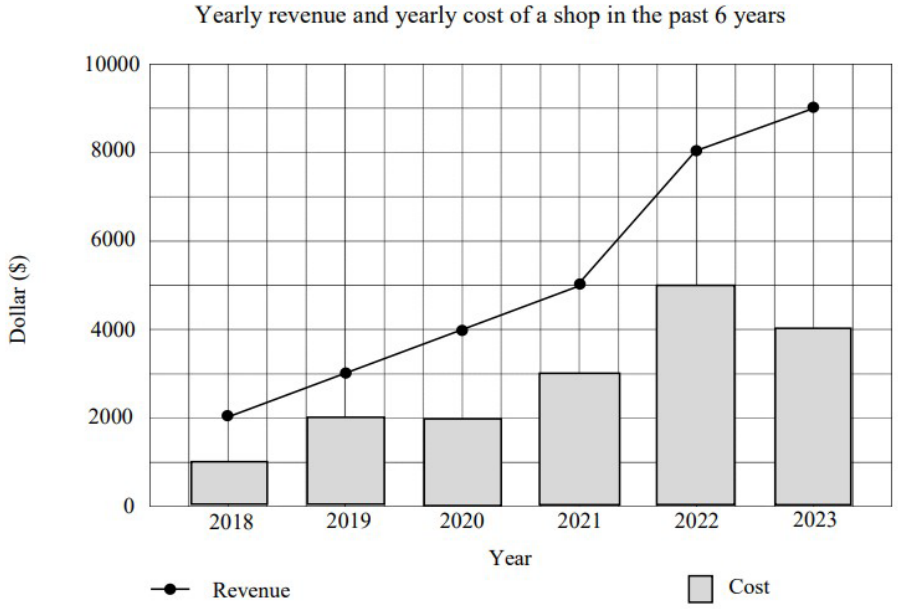
Figure 5

(a) Write down the value of a. **(1 marks)**

(b) What is the least possible time difference in solving the puzzle between the fastest and the slowest students? **(2 marks)**

5. [23 - 24 S1 Final Exam - 12] (70%)

12. The following statistical chart shows the yearly revenue and yearly cost of a shop in the past 6 years.



(a) What was the least yearly cost of the shop from 2018 to 2023? **(1 mark)**

(b) What was the trend in the yearly revenue of the shop from 2018 to 2023? **(1 mark)**

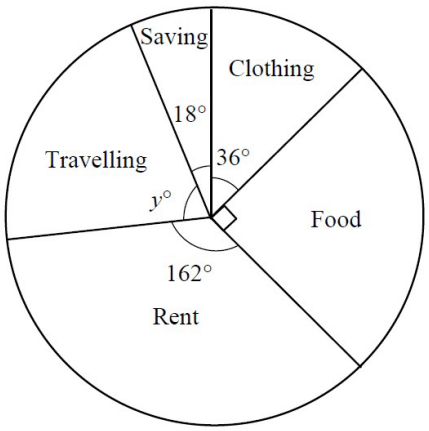
(c) (i) It is given that the yearly profit is obtained by subtracting yearly cost from yearly revenue. Write down the profit made by the shop in 2023. **(1 mark)**

(ii) Find the percentage change in profit from 2018 to 2023. **(2 marks)**

6. [24 - 25 S1 Final Exam - 02] (97%)

2. The pie chart shows the expenditure of a family in a certain month. Write down the value of y.

Expenditure of a family in a certain month



_____ **(1 mark)**

7. [24 - 25 S1 Final Exam - 15] (55%)

15. The following back-to-back stem-and-leaf diagram shows the distribution of the numbers of apples and oranges sold in a shop in the past 10 days.

Numbers of apples and oranges sold in a shop in the past 10 days

Apple Leaf (1)	Stem (10)	**Orange** Leaf (1)
x y	6	*x* 2 3
9 8 7 5	7	6
3 1 1	8	4 8
	9	0 1 2 3
2	10	

(a) Write down all the possible values of x. **(1 mark)**

(b) It is given that the average number of oranges sold in the past 10 days is 80.

(i) Find x.

(ii) Bibi claims that the difference between the highest number and the lowest number of apples sold in the last 10 days must be greater than 40. Do you agree? Explain your answer. **(4 marks)**

8. [22 - 23 S2 Final Exam - 02] (89%)

2. The following stem-and-leaf diagram shows the exam scores of 12 students in a class.

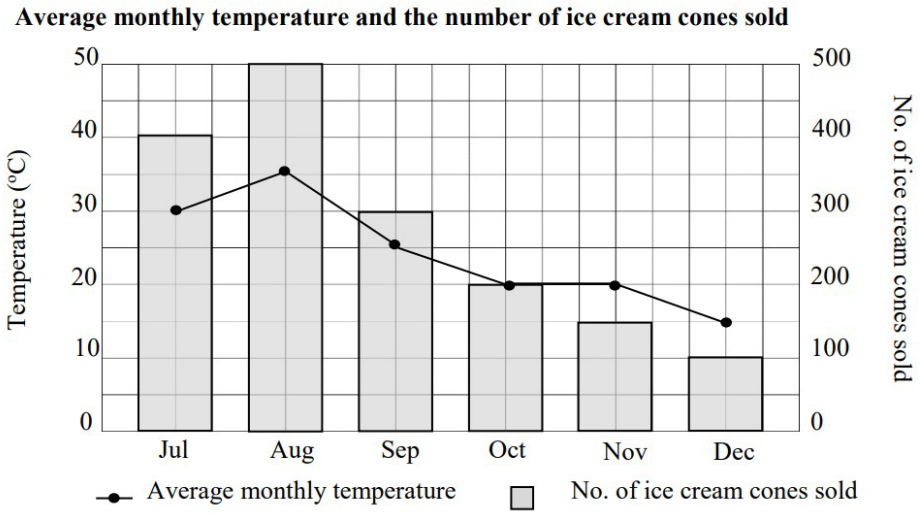
Exam Scores of 12 students

Stem (10)	Leaf (1)			
4	*a*	8	9	
5	0	5	*a*	9
b	1	4	*b*	
7	4	6		

The passing score of the exam is 56. If the number of students who passed the exam and the number of students who failed the exam are the same, write down the values of a and b. **(2 marks)**

9. [22 - 23 S2 Mid-year Exam - 03] (72%)

3. The following statistical chart shows the average monthly temperatures in a city and the number of ice cream cones sold in a certain shop in that city from July to December.



(a) Write down the highest average monthly temperature from July to December. **(1 mark)**

(b) If the profit per ice cream cone sold is \$4.2, find the profit earned by the shop in November. **(2 marks)**

10. [22 - 23 S2 Mid-year Exam - 08] (67%)

8. The following back-to-back stem-and-leaf diagram shows the dictation scores of class 2G and class 2H.

Dictation Scores of Class 2G and Class 2H

Class 2G		Class 2H
Leaf (1)	Stem (10)	Leaf (1)
9 *b*	6	
8 8 8 6 4 3 0	*a*	7 *b* 8
c 3 2 1	8	0 3 5 6 8
	9	1 *c* 3 4 8

(a) Write down the value of a. **(1 mark)**

(b) It is given that a, b and c are different integers.

(i) Write down the values of b and c. **(2 marks)**

(ii) Write down the difference between the highest score and the lowest score in Class 2G. **(1 mark)**