

TB(1B) Ch. 14 Simple Statistical Diagrams and Graphs (I)

Conventional Questions

1. [13-14 Final Exam Q11]

The following frequency distribution table shows the daily wages of 50 employees in *ABC* company.

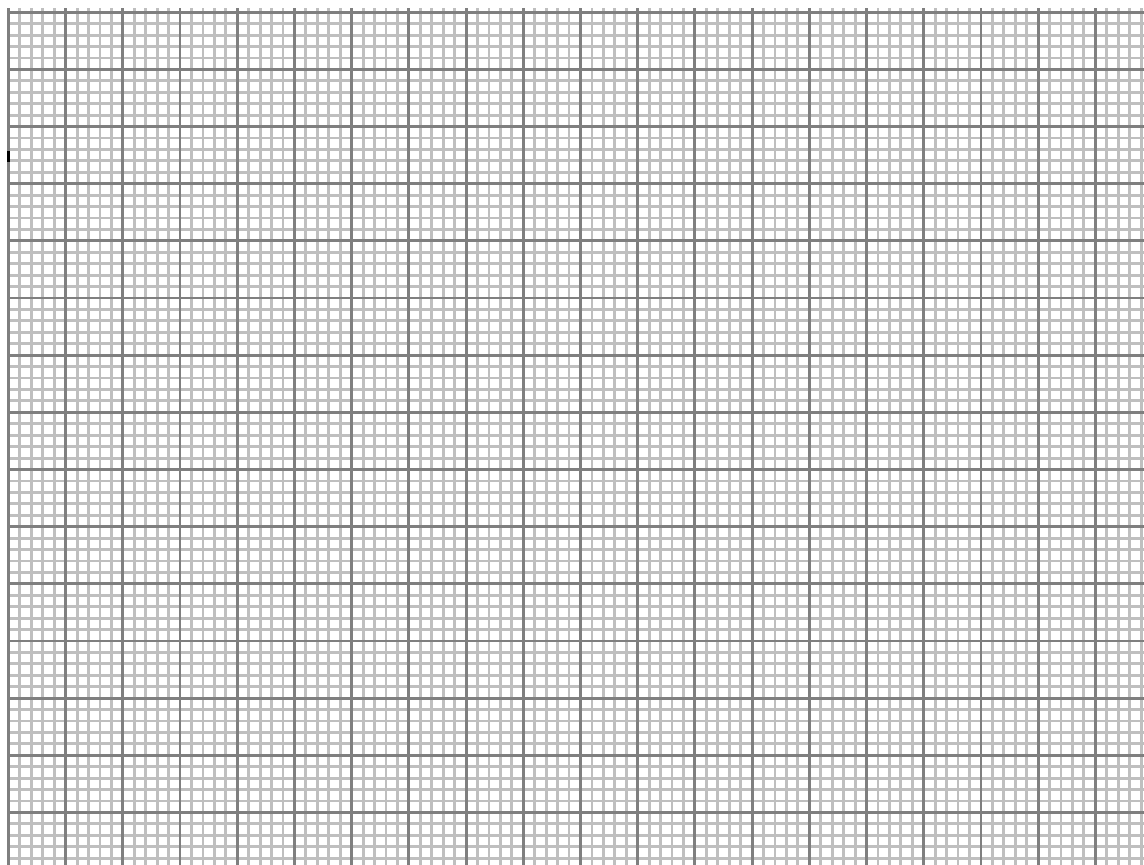
(a) Complete the table below.

(2 marks)

Wage (HKD)	Class boundaries (HKD)	Class mark (HKD)	Frequency
300-399			3
400-499			7
500-599			11
600-699			12
700-799			12
800-899			5

(b) Draw a histogram to present the above data.

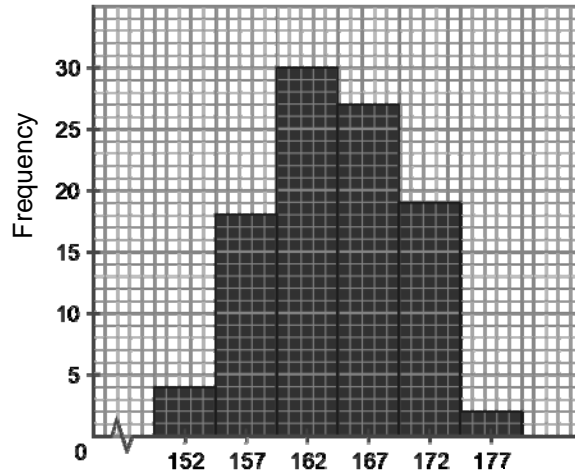
(3 marks)



2. [14-15 Final Exam Q3]

The following histogram shows the height of a group of 18-year-old students.

Height of a group of 18-year-old students

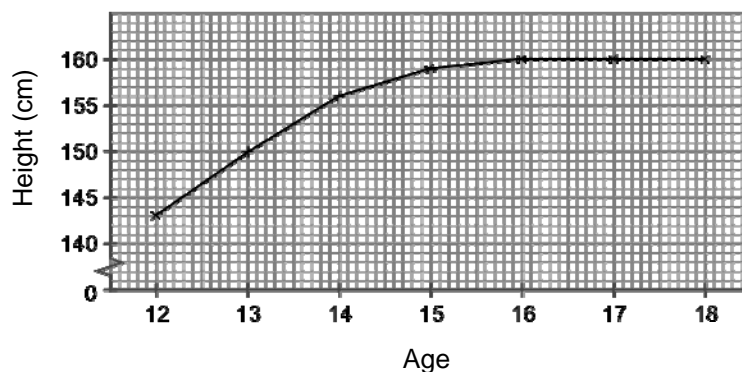


- (a) (i) According to the above histogram, complete the following frequency distribution table. **(2 marks)**

Height (cm)	Class boundaries (cm)	Class mark (cm)	Frequency
150 – 154			4
155 – 159			18
160 – 164			30
165 – 169			27
170 – 174			19
175 – 179			2

- (ii) Write down the class width. **(1 mark)**
 (iii) Chris is a student from the class interval 175cm – 179cm. The height of Chris is y cm. It is known that when y is rounded off to the nearest 0.1, the result is 179.5. Write down a possible value of y . **(1 mark)**
- (b) Amy is one of the students in the group. The following broken-line graph shows her height from 12 years old to 18 years old. Describe the changes in the height of Amy from 12 years old to 18 years old. **(2 marks)**

Height of Amy from 12 years old to 18 years old

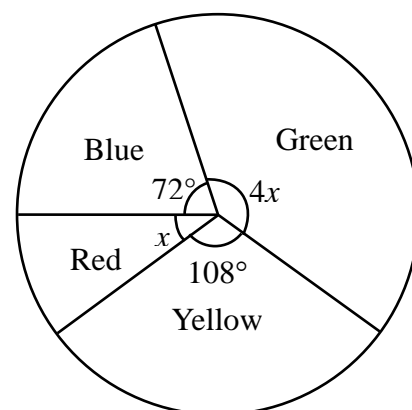


3. [14-15 Final Exam Q8]

The pie chart shows the favourite colour of a group of students. It is known that the number of students choosing 'Green' is 4 times the number of students choosing 'Red'.

- (a) Find x . (2 marks)
 (b) Find the percentage of students choosing 'Green' and 'Yellow'. (2 marks)

Favourite colour of a group of students



4. [15-16 Final Exam, #3]

Figure 1 shows the stem-and-leaf diagram of the exam scores of 30 students in a school.

The exam scores of 30 students in a school

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

Figure 1

- (a) If there are 14 students who scored less than 66, write down the values of x and y . (2 marks)
 (b) (i) Complete the following frequency distribution table according to the data in Figure 1. (2 marks)

Score	Class boundaries	Class mark	Frequency
40 - 59			
60 - 79			
80 - 99			
Total			30

- (ii) The above table is used to construct a pie chart of the exam scores of 30 students in the school as shown in **Figure 2**. Find a . **(2 marks)**

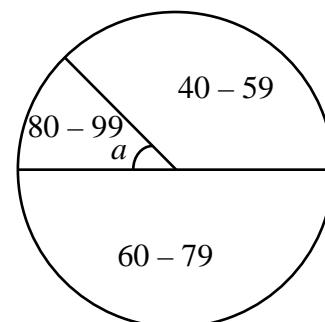


Figure 2

5. [16-17 Final Exam, #8]

Consider the following back-to-back stem-and-leaf diagram.

Number of books read by 40 S.1G students in a year

Boys					Stem (10)	Girls				
Leaf (1)						Leaf (1)				
8	6	6	5	1	0	6	8			
9	9	8	8	7	1	1	2	3	6	6
8	8	7	x	5	2	0	4	5	9	
	8	6	6	5	3	3	3	x	5	

- (a) Write down the number of girls in S.1G. **(1 mark)**
 (b) Find the percentage of students in S.1G who read more than 30 books in a year. **(2 marks)**
 (c) Write down the value of x . **(1 mark)**

6. [17 – 18 S1 Final Exam #13]

Figure 9 shows the stem-and-leaf diagram of the weight of 25 students in a S.6 class.

The weight (in kg) of 25 students in a S.6 class

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

Figure 9

- (a) There are 10 students with weight less than or equal to 45 kg, write down the values of a and b . **(2 marks)**
 (b) Is it possible that the average weight of the six heaviest students in the class is 63.5 kg? Explain briefly. **(1 mark)**

~ End ~