# TB(1B) Ch.12 Introduction to Statistics and Statistical Charts

## **Conventional Questions**

#### 1. [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						Girls						
Leaf (1)				Stem (10)	Leaf (1)							
8	6	6	5	1	0	0	6	8				
					0							
9	9	8	8	7	5	1	1	2	3	6	6	
				2	0							
8	8	7	x	5	2	2	0	4	5 <i>x</i>	9		
		8	6	6	5	3	3	3	x	5		
							ı					

(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)

#### 2.[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	f(1)								
3	7	7	8	8						
4	0	0	1 3	4	5	a	8			
5	1	2	3	3	5	7	9	9		
6	2	b	2	6	6	c				
	ı			•						

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)

#### 3.[18–19 S1 Final Exam #8]

In **Figure 3**, the pie chart shows the expenditure of Karina in a Japan trip.

- (a) It is given that she spent \$1500 on meals. Find the total expenditure. (1 mark)
- (b) Find the expenditure on souvenir. (2 marks)

The expenditure of Karina in a Japan trip

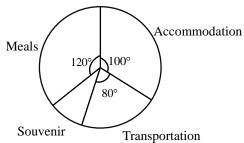
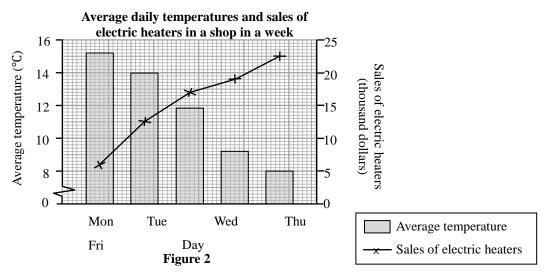


Figure 3

## 4.[20-21 S1 Final Exam #8]

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



- (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)

### **5.**[20-21 S1 Final Exam #19]

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

<u>Jenny</u>	<u>Kenji</u>				
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

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Jenny		Kenji
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)

~ End ~