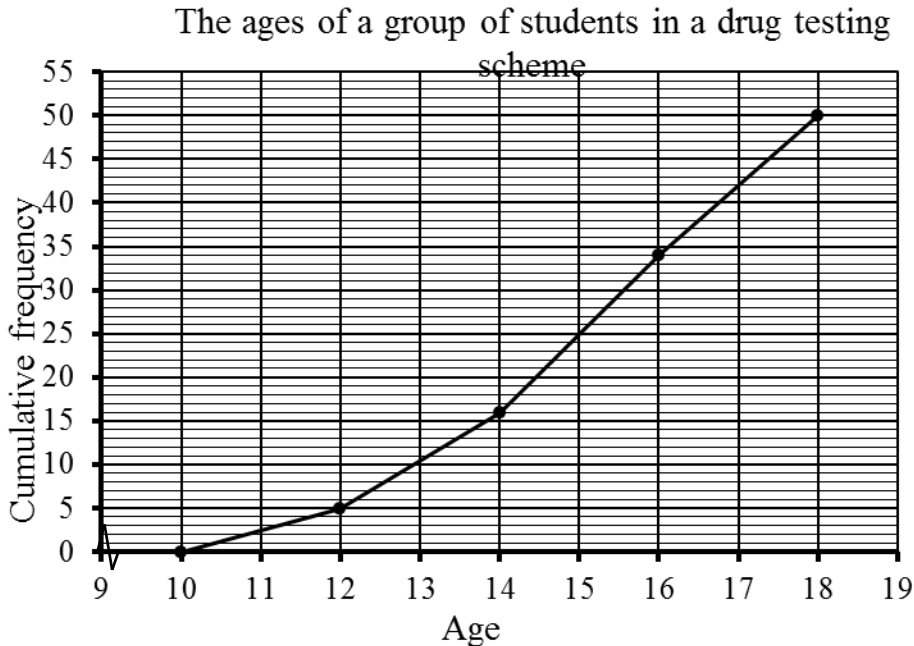


## TB(2A) Ch. 6 More about Statistical Diagrams

### Multiple Choice Questions

1. [13-14 F.3 Final Exam, #17]

The following cumulative frequency polygon shows the age distribution of a group of students in a drug testing scheme.



Find the median age of the students.

- A. 13                      B. 14  
C. 15                      D. 16

2. [13-14 F.3 Final Exam, #18]

Refer to Question 17. Find the 20<sup>th</sup> percentile.

- A. 12                      B. 13  
C. 14                      D. 15

3. [14-15 F.2 Final Exam, #12]

The frequency distribution table below shows the ages of 50 flight attendants in Good Hope Airway.

Age	20 - 24	25 - 29	30 - 34	35 - 39
Frequency	$x$	15	12	5

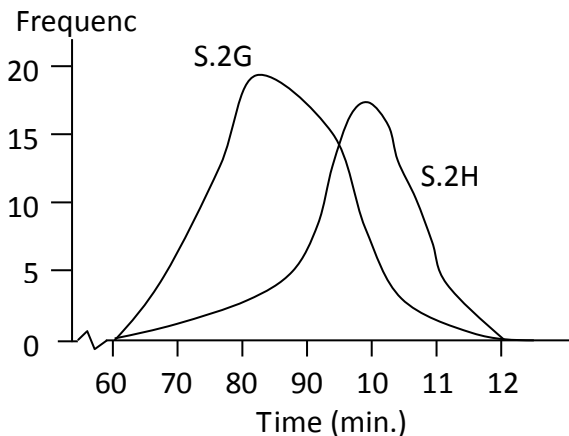
What percentage of the flight attendants have the ages 29 or below?

- A. 30%                      B. 34%  
C. 64%                      D. 66%

4. [14-15 F.2 Final Exam, #18]

Consider the diagram below. Which of the following must be true?

**Time spent on social media per day  
 by students in S.2G and S.2H**

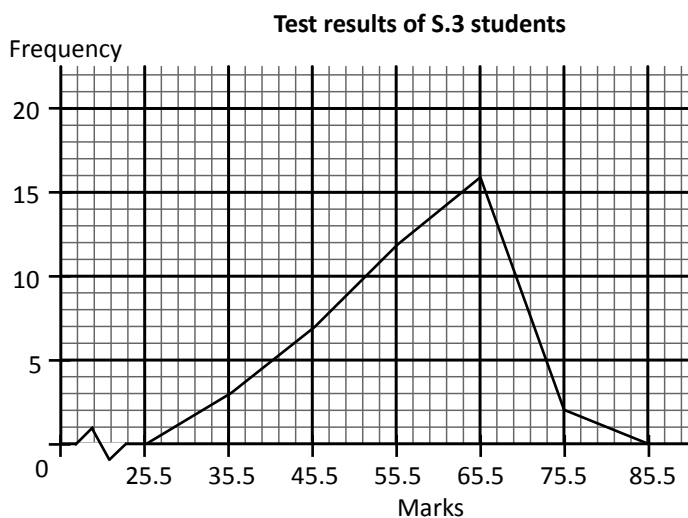


- I. In general, S.2H students spend more time on social media per day than S.2G.
- II. No students in S.2G and S.2H spend less than an hour on social media per day.
- III. The diagram shows two cumulative frequency curves.

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

5. [14-15 F.3 Final Exam, #10]

The following frequency polygon shows the test results of a group of S.3 students.

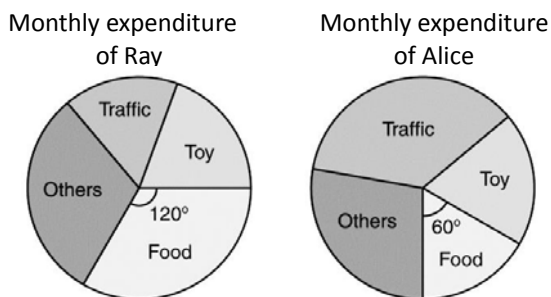


If the passing mark is 60.5, what is the percentage of students who fail the test?

- A. 14
- B. 45
- C. 55
- D. 86

6. [14-15 F.3 Final Exam, #11]

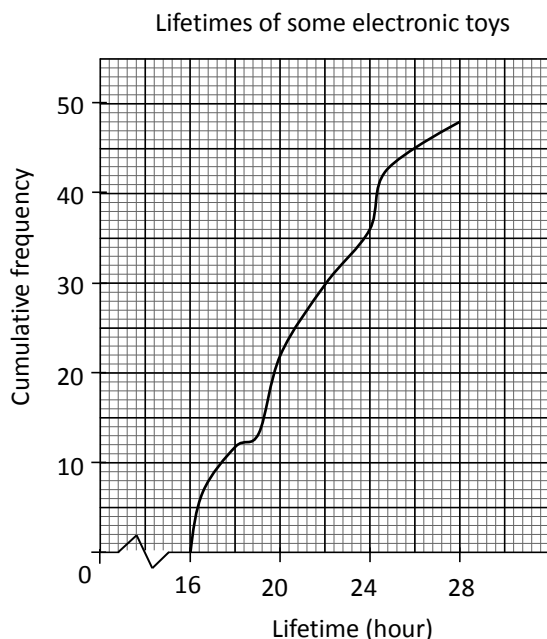
The pie charts show the monthly expenditures (in \$) of Alice and Ray respectively. Which of the following must be true?



- I. Alice spends more money on food than Ray.
  - II. The monthly expenditure of Alice is more than that of Ray.
  - III. Ray earns more than that of Alice.
- A. I only
  - B. I and II only
  - C. I, II and III
  - D. None of the above

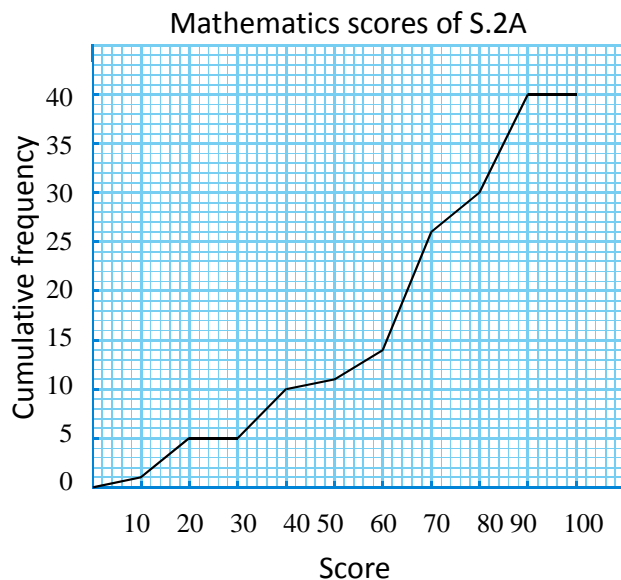
7. [14-15 F.3 Final Exam, #26]

The cumulative frequency curve shows the lifetimes (in hour) of some electronic toys. Which of the following must be true?



- I. The difference between the upper quartile and the lower quartile is 8 hours.
  - II. The 75th percentile is 24 hours.
  - III. The median is 22 hours.
- A. I and II only
  - B. I and III only
  - C. II and III only
  - D. I, II and III

The cumulative frequency polygon shows the scores of S.2A students in a Mathematics test. Study the graph and answer questions #8 and #9.



**8. [15-16 Mid-year Exam, #7]**

Find the median score in the Mathematics test.

- A. 20                      B. 45  
C. 50                      D. 65

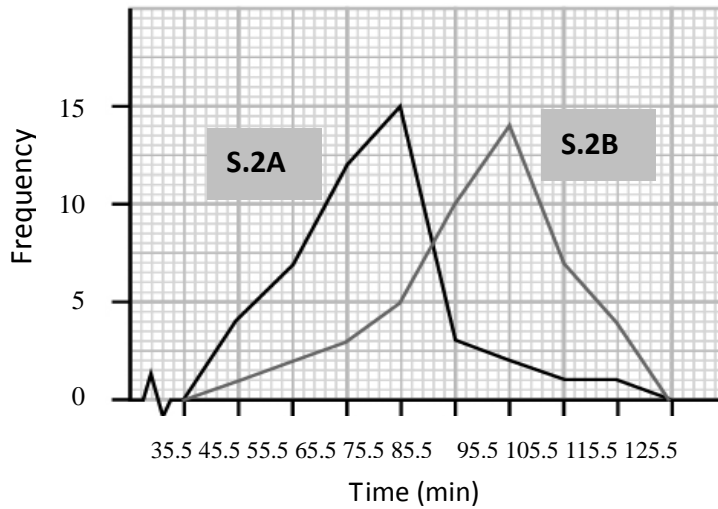
**9. [15-16 Mid-year Exam, #8]**

Find the 40<sup>th</sup> percentile from the cumulative frequency polygon.

- A. 10                      B. 16  
C. 62                      D. 90

10. [15-16 Mid-year Exam, #16]

Revision Time of S.2A and S.2B students



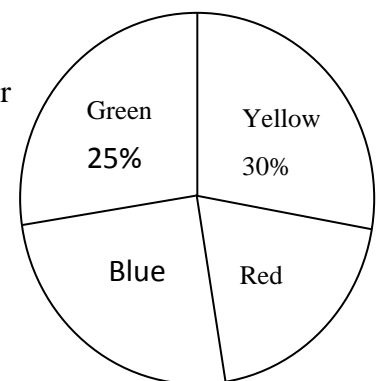
Referring to the above figure, which of the following is/are true?

- I. The figure shows two cumulative frequency polygons.
- II. The majority of S.2B students spend less time on revision than S.2A students.
- III. 14 S.2B students spend 90.5 minutes to 100.5 minutes on revision.

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

11. [16-17 Mid-year Exam, #9]

The pie chart below shows the distribution of four types of colour paper on the shelf. If there are 300 pieces of blue paper, how many pieces of red paper are there?



- A. 200
- B. 240
- C. 300
- D. 360

12. [16-17 Mid-year Exam, #10]

The table below shows the weights of 50 people.  
 The class mark of the last interval is

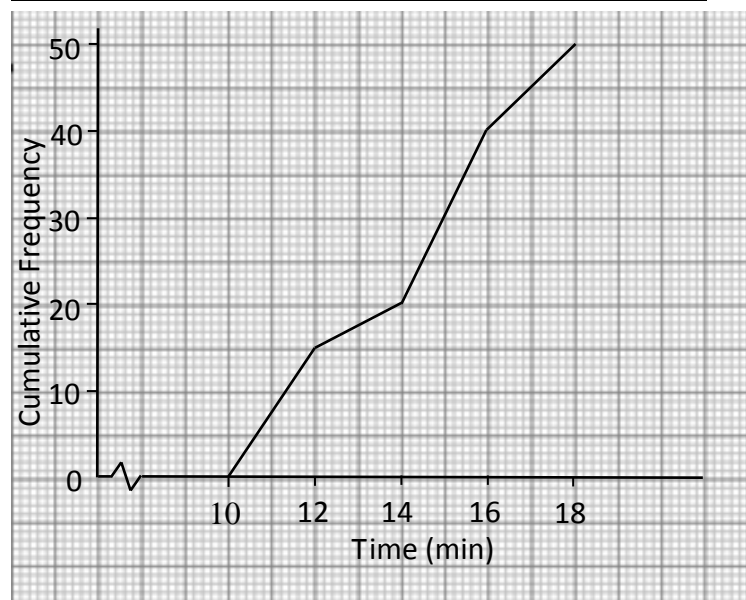
Weight(kg)	Frequency
40 – 44	5
45 – 49	8
50 – 54	13
55 – 59	11
60 – 64	11
65 – 69	2

- A. 65 kg.      B. 67 kg.  
 C. 67.5 kg.    D. 69.5 kg.

13. [16-17 Mid-year Exam, #19]

The cumulative frequency polygon below shows the time (in minutes) taken by a group of kids to complete a game.

The time taken by a group of kids to complete a game



How many kids spent 12 minutes or more to complete the game?

- A. 5  
 B. 15  
 C. 25  
 D. 35

14. [16-17 Final Exam, #10]

All the students are assigned to one of the 6 houses at a school. Which statistical diagram should be used to show the percentage of students in each house?

- A. Bar chart  
 B. Frequency polygon  
 C. Pie chart  
 D. Scatter diagram

15. [16-17 Final Exam, #18]

The following table shows the weights of students in S.2G.

Weight (kg)	Number of students
20 – 29	1
30 – 39	2
40 – 49	20
50 – 59	10
60 – 69	5
70 – 79	2

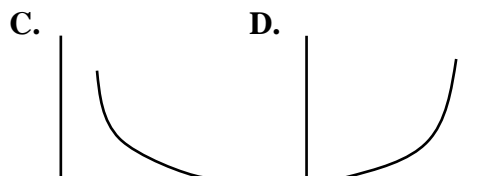
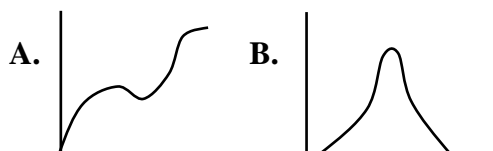
Which of the following is/are correct?

- I. The class mark of the class interval 70 kg – 79 kg is 74.5 kg.
- II. The lower class boundary of the first class interval is 20 kg.
- III. The class width of the class interval 70 kg – 79 kg is 9 kg.

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

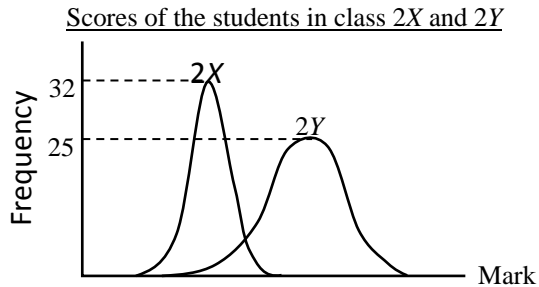
16. [17-18 Mid-year Exam, #9]

Which of the following is a cumulative frequency curve?



17. [17-18 Mid-year Exam, #18]

The distributions of the examination results of students in 2 classes are shown in the figure. Which of the following must be true?

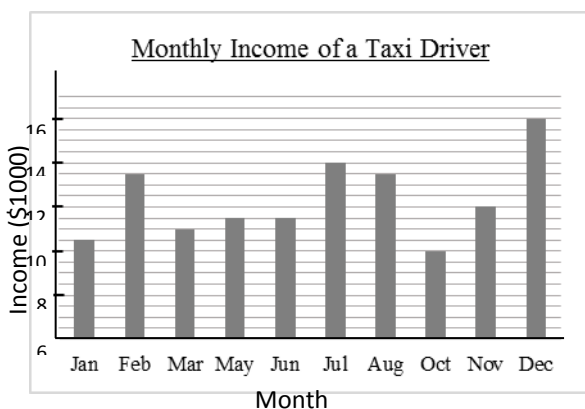


- I. There are 32 students in class 2X and 25 students in class 2Y.
- II. 7 students in class 2X getting higher score than the students in 2Y.
- III. The students in class 2Y have better performance in general.

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

18. [17-18 Mid-year Exam, #19]

The bar chart below shows the monthly income of a taxi driver last year. Which of the followings must be true?

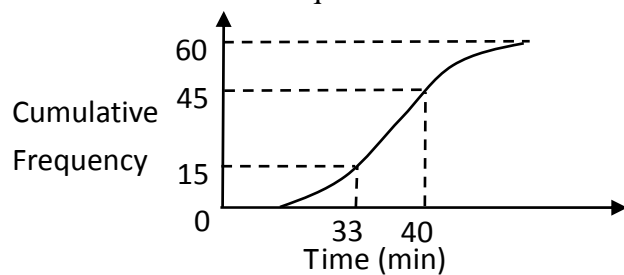




- A. The income in October was \$1000.
- B. The sum of the income in January and December was \$27 000.
- C. The income in December was twice as that in March.
- D. The income in November was \$500 more than that in May.

19. [17-18 Final Exam, #7]

The cumulative frequency curve shows the time spent on using mobile phones every day by 60 S.2 students. Find the lower quartile.



- A. 15 mins
- B. 33 mins
- C. 40 mins
- D. 45 mins

~End~