

A.S.9: Frequency Histograms, Bar Graphs and Tables: Analyze and interpret a frequency distribution table or histogram or a box-and-whisker plot

- 1 The test scores for 10 students in Ms. Sampson's homeroom were 61, 67, 81, 83, 87, 88, 89, 90, 98, and 100. Which frequency table is accurate for this set of data?

Interval	Frequency
61–70	2
71–80	2
81–90	7
91–100	10

1)

Interval	Frequency
61–70	2
71–80	2
81–90	8
91–100	10

2)

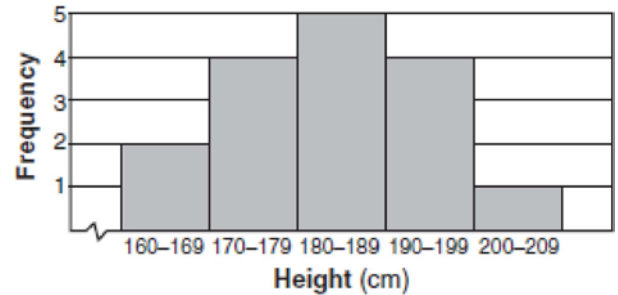
Interval	Frequency
61–70	2
71–80	0
81–90	8
91–100	10

3)

Interval	Frequency
61–70	2
71–80	0
81–90	6
91–100	2

4)

- 2 The accompanying histogram shows the heights of the students in Kyra's health class.



What is the total number of students in the class?

- 1) 5
2) 15
3) 16
4) 209

- 3 The table below shows a cumulative frequency distribution of runners' ages.

Cumulative Frequency Distribution of Runners' Ages

Age Group	Total
20–29	8
20–39	18
20–49	25
20–59	31
20–69	35

According to the table, how many runners are in their forties?

- 1) 25
2) 10
3) 7
4) 6

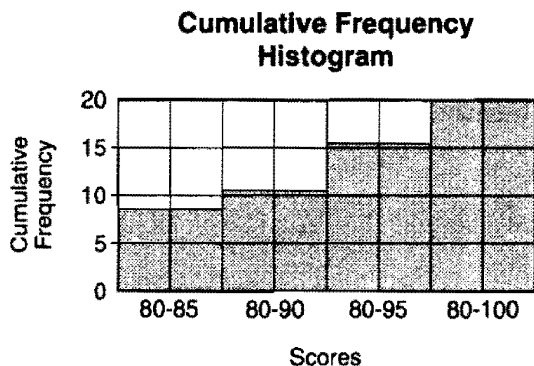
- 4 The cumulative frequency table below shows the length of time that 30 students spent text messaging on a weekend.

Minutes Used	Cumulative Frequency
31–40	2
31–50	5
31–60	10
31–70	19
31–80	30

Which 10-minute interval contains the first quartile?

- 1) 31 – 40
- 2) 41 – 50
- 3) 51 – 60
- 4) 61 – 70

- 5 The accompanying histogram shows the scores of students on a Math A test.



How many students have scores of 96 to 100?

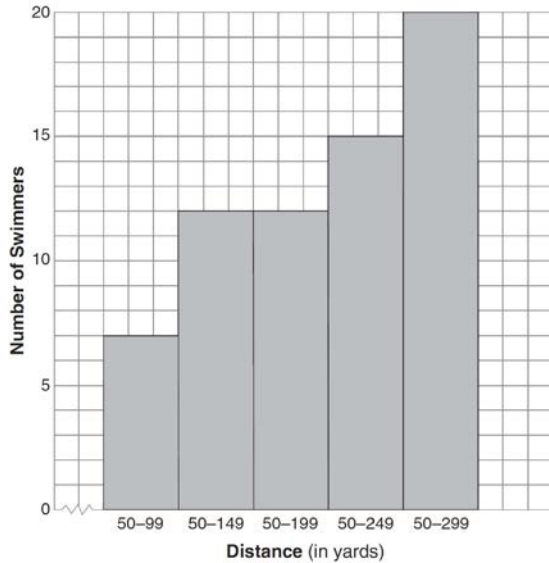
- 1) 55
- 2) 20
- 3) 5
- 4) 4

- 6 The cumulative frequency table below shows the number of minutes 31 students spent text messaging on a weekend.

Text-Use Interval (minutes)	Cumulative Frequency
41–50	2
41–60	5
41–70	10
41–80	19
41–90	31

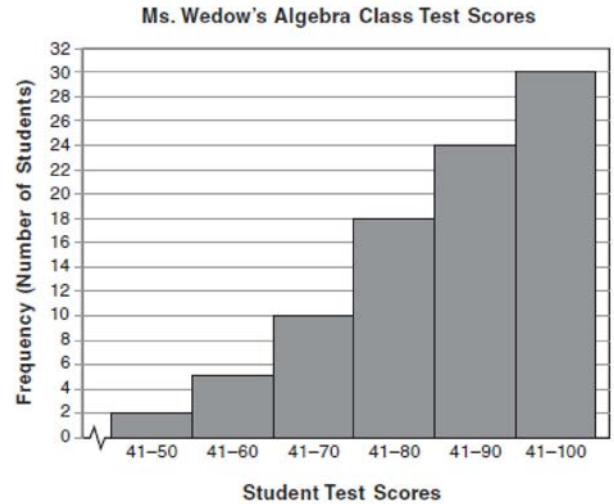
Determine which 10-minute interval contains the median. Justify your choice.

- 7 The following cumulative frequency histogram shows the distances swimmers completed in a recent swim test.



Based on the cumulative frequency histogram, determine the number of swimmers who swam between 200 and 249 yards. Determine the number of swimmers who swam between 150 and 199 yards. Determine the number of swimmers who took the swim test.

- 8 The diagram below shows a cumulative frequency histogram of the students' test scores in Ms. Wedow's algebra class.



Determine the total number of students in the class. Determine how many students scored higher than 70. State which *ten-point interval* contains the median. State which *two ten-point intervals* contain the same frequency.

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Answer Section

1 ANS: 4 REF: 060401a

2 ANS: 3
 $2 + 4 + 5 + 4 + 1 = 16$

REF: 010504a

3 ANS: 3
 $25 - 18 = 7$

REF: 060822ia

4 ANS: 3 REF: 061230ia

5 ANS: 4 REF: spring9818a

6 ANS:
 If there are 31 students, the 16th student's time represents the median. The 16th time is in the 41-80 interval on the cumulative frequency table and the 71-80 interval on the related frequency table.

REF: 011432ia

7 ANS:
 3, 0, 20. $15 - 12 = 3$. $12 - 12 = 0$

REF: 081234ia

8 ANS:
 30, 20, 71-80, 81-90 and 91-100

REF: 061038ia