

1. Fifty part-time students were asked how many courses they were taking this term. The (incomplete) results are shown below:

# of Courses	Frequency	Relative Frequency	Cumulative Relative Frequency
1	30	0.6	
2	15		
3			

Fill in the rest of the table.

Which table below is the correct table?

A.

# of Courses	Frequency	Relative Frequency	Cumulative Relative Frequency
1	30	0.6	0.6
2	15	0.3	0.9
3	10	0.2	1

B.

# of Courses	Frequency	Relative Frequency	Cumulative Relative Frequency
1	30	0.6	0.6
2	15	0.3	0.8
3	15	0.2	1

C.

# of Courses	Frequency	Relative Frequency	Cumulative Relative Frequency
1	30	0.6	0.6
2	15	0.3	0.9
3	15	0.2	1

D.

# of Courses	Frequency	Relative Frequency	Cumulative Relative Frequency
1	30	0.6	0.6
2	15	0.3	0.8
3	10	0.2	1

E.

# of Courses	Frequency	Relative Frequency	Cumulative Relative Frequency
1	30	0.6	0.6
2	15	0.2	0.8
3	5	0.1	1

F.

# of Courses	Frequency	Relative Frequency	Cumulative Relative Frequency
1	30	0.6	0.6
2	15	0.3	0.9
3	5	0.1	1

2. Forbes magazine published data on the best small firms in 2012. These were firms which had been publicly traded for at least a year, have a stock price of at least \$5 per share, and have reported annual revenue between \$5 million and \$1 billion. The table below shows the ages of the chief executive officers for the first 60 ranked firms.

Age	Frequency	Relative Frequency	Cumulative Relative Frequency
40 – 44	3		
45 – 49	11		
50 – 54	13		
55 – 59	16		
60 – 64	10		
65 – 69	6		
70 – 74	1		

What is the cumulative relative frequency for CEOs younger than 50? (Round to four decimal places.)

- A. The cumulative relative frequency for CEOs younger than 50 is 0.2328.
- B. The cumulative relative frequency for CEOs younger than 50 is 0.2329.
- C. The cumulative relative frequency for CEOs younger than 50 is 0.2332.
- D. The cumulative relative frequency for CEOs younger than 50 is 0.2335.
- E. The cumulative relative frequency for CEOs younger than 50 is 0.2339.
- F. The cumulative relative frequency for CEOs younger than 50 is 0.2338.
- G. The cumulative relative frequency for CEOs younger than 50 is 0.2327.
- H. The cumulative relative frequency for CEOs younger than 50 is 0.2333.

3. Forbes magazine published data on the best small firms in 2012. These were firms which had been publicly traded for at least a year, have a stock price of at least \$5 per share, and have reported annual revenue between \$5 million and \$1 billion. The table below shows the ages of the chief executive officers for the first 60 ranked firms.

Age	Frequency	Relative Frequency	Cumulative Relative Frequency
40 – 44	3		
45 – 49	11		
50 – 54	13		
55 – 59	16		
60 – 64	10		
65 – 69	6		
70 – 74	1		

What percentage of CEOs are 45 and older? (Round to the nearest percent.)

- A. The percentage of CEOs who are 45 years and older is 99%.
- B. The percentage of CEOs who are 45 years and older is 100%.
- C. The percentage of CEOs who are 45 years and older is 97%.
- D. The percentage of CEOs who are 45 years and older is 93%.
- E. The percentage of CEOs who are 45 years and older is 94%.
- F. The percentage of CEOs who are 45 years and older is 95%.
- G. The percentage of CEOs who are 45 years and older is 96%.
- H. The percentage of CEOs who are 45 years and older is 92%.

4. The table below contains data on hurricanes that have made direct hits on the U.S. Between 1851 and 2004. A hurricane is given a strength category rating based on the minimum wind speed generated by the storm.

What is the percentage of direct hits that were category 4 hurricanes? (Round to the nearest tenth of a percent.)

Category	Number of Direct Hits	Relative Frequency	Cumulative Frequency
1	109	0.3993	0.3993
2	72	0.2637	0.6630
3	71	0.2601	
4	18		0.9890
5	3	0.0110	1.0000
	Total = 273		

- A. The percentage of direct hits that were category 4 hurricanes is 6.7%.
- B. The percentage of direct hits that were category 4 hurricanes is 6.3%.
- C. The percentage of direct hits that were category 4 hurricanes is 6.8%.
- D. The percentage of direct hits that were category 4 hurricanes is 6.4%.
- E. The percentage of direct hits that were category 4 hurricanes is 6.6%.
- F. The percentage of direct hits that were category 4 hurricanes is 6.5%.
- G. The percentage of direct hits that were category 4 hurricanes is 6.2%.
- H. The percentage of direct hits that were category 4 hurricanes is 7.0%.

5. Fifty part-time students were asked how many courses they were taking this term. The (incomplete) results are shown below:

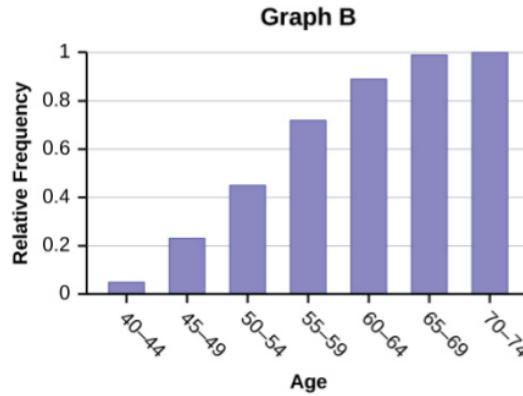
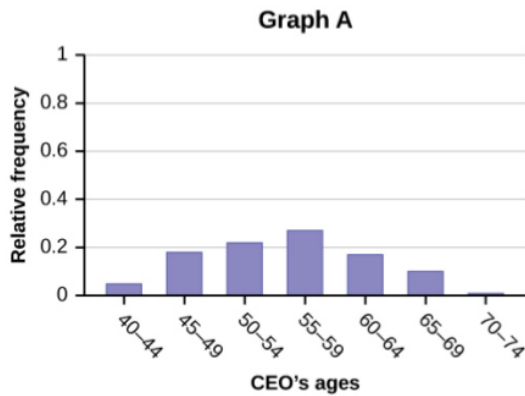
# of Courses	Frequency	Relative Frequency	Cumulative Relative Frequency
1	30	0.6	
2	15		
3			

Fill in the rest of the table.

What percent of students take one or two courses?

- A. 75% of students take one or two two courses.
- B. 95% of students take one or two two courses.
- C. 80% of students take one or two two courses.
- D. 85% of students take one or two two courses.
- E. 60% of students take one or two two courses.
- F. 90% of students take one or two two courses.
- G. 70% of students take one or two two courses.
- H. 65% of students take one or two two courses.

6. Forbes magazine published data on the best small firms in 2012. These were firms which had been publicly traded for at least a year, have a stock price of at least \$5 per share, and have reported annual revenue between \$5 million and \$1 billion. The graph below shows the ages of the chief executive officers for the first 60 ranked firms. Which graph shows the relative frequency and which shows the cumulative relative frequency?



- A. Graph A shows the relative frequency.
- B. Graph B shows the relative frequency.

7. The table below contains data on hurricanes that have made direct hits on the U.S. Between 1851 and 2004. A hurricane is given a strength category rating based on the minimum wind speed generated by the storm.

What is the relative frequency of direct hits that were AT MOST a category 3 storm? (Round to four decimal places.)

Category	Number of Direct Hits	Relative Frequency	Cumulative Frequency
1	109	0.3993	0.3993
2	72	0.2637	0.6630
3	71	0.2601	
4	18		0.9890
5	3	0.0110	1.0000
	Total = 273		

- A. The relative frequency of direct hits that were AT MOST a category 3 storm is 0.9731.
- B. The relative frequency of direct hits that were AT MOST a category 3 storm is 0.9781.
- C. The relative frequency of direct hits that were AT MOST a category 3 storm is 0.9287.
- D. The relative frequency of direct hits that were AT MOST a category 3 storm is 0.9237.
- E. The relative frequency of direct hits that were AT MOST a category 3 storm is 0.9787.
- F. The relative frequency of direct hits that were AT MOST a category 3 storm is 0.9737.
- G. The relative frequency of direct hits that were AT MOST a category 3 storm is 0.9281.
- H. The relative frequency of direct hits that were AT MOST a category 3 storm is 0.9231.

8. Forbes magazine published data on the best small firms in 2012. These were firms which had been publicly traded for at least a year, have a stock price of at least \$5 per share, and have reported annual revenue between \$5 million and \$1 billion. The table below shows the ages of the chief executive officers for the first 60 ranked firms.

Age	Frequency	Relative Frequency	Cumulative Relative Frequency
40 – 44	3		
45 – 49	11		
50 – 54	13		
55 – 59	16		
60 – 64	10		
65 – 69	6		
70 – 74	1		

What is the frequency for CEOs ages between 49 and 65, non-inclusive?

- A. The frequency for CEOs between the ages of 49 and 65 years (non-inclusive) is 36.
- B. The frequency for CEOs between the ages of 49 and 65 years (non-inclusive) is 44.
- C. The frequency for CEOs between the ages of 49 and 65 years (non-inclusive) is 38.
- D. The frequency for CEOs between the ages of 49 and 65 years (non-inclusive) is 35.
- E. The frequency for CEOs between the ages of 49 and 65 years (non-inclusive) is 34.
- F. The frequency for CEOs between the ages of 49 and 65 years (non-inclusive) is 39.
- G. The frequency for CEOs between the ages of 49 and 65 years (non-inclusive) is 42.
- H. The frequency for CEOs between the ages of 49 and 65 years (non-inclusive) is 41.