

Data Analysis

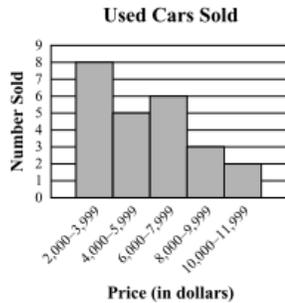
Directions

Show all of your work. You MAY use a calculator for this section.

Be sure to answer all questions – accuracy counts. Work **independently**.

1

The histogram below shows the relationship between the price of a used car and the number of used cars sold.

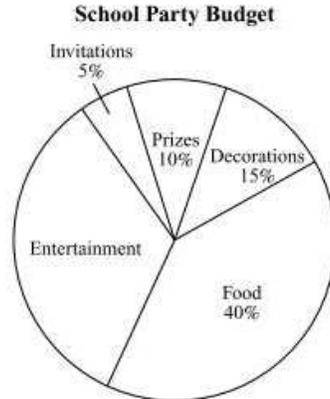


Based on the histogram, which statement **must** be true?

- A. No used car sold for \$7,000.
- B. Exactly 5 of the used cars sold for \$4,000.
- C. The most expensive used car sold for \$11,999.
- D. Most of the used cars sold for less than \$6,000.

2

The circle graph below shows information about the budget for a school party.



The total budget for the party is \$1500.

What is the total dollar amount in the budget for entertainment?

- A. \$300
- B. \$450
- C. \$500
- D. \$1050

3

The table below shows the ticket costs for seats in different sections of a stadium.

**Ticket Costs for
Stadium Seats**

Section	Ticket Cost per Seat
main	\$75
lower deck	\$59
upper deck	\$42
bleacher	\$22

What is the greatest number of bleacher seat tickets that can be bought for the cost of 12 lower deck seat tickets?

- A. 22
- B. 32
- C. 42
- D. 52

4

The price per pound of each kind of vegetable sold at a farmers' market is shown in the table below.

Prices per Pound (\$)

0.95	0.70	1.25	1.49
1.49	0.95	0.95	1.25
1.20	1.99	1.99	1.49
0.45	1.49	1.25	0.60

What is the mode of the prices per pound for the vegetables?

- A. \$0.95
- B. \$1.25
- C. \$1.49
- D. \$1.99

5

Jane played in 12 basketball games.

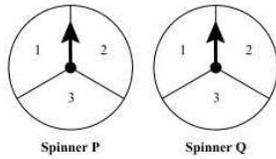
- For her first 8 games, the mean number of points she scored per game was 11.
- For her last 4 games, the mean number of points she scored per game was 15.

What was the total number of points Jane scored in all 12 games?

- A. 148
- B. 156
- C. 228
- D. 312

6

Spinners P and Q shown below are divided into congruent sections.



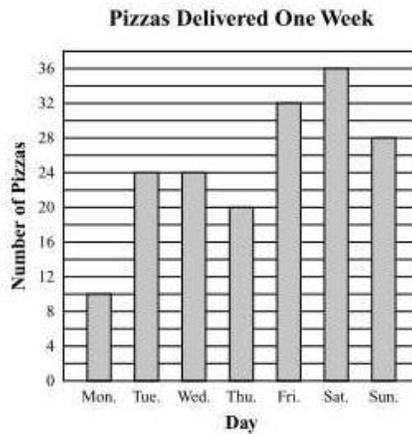
The arrow on each spinner will be spun once. The number in the section where the arrow stops on Spinner P will be added to the number in the section where the arrow stops on Spinner Q.

What is the probability that the sum of the two numbers will be 5?

- A. $\frac{1}{9}$
- B. $\frac{2}{9}$
- C. $\frac{1}{3}$
- D. $\frac{2}{3}$

7

The bar graph below shows the number of pizzas a restaurant delivered each day during one week.



What is the range of the numbers of pizzas delivered during the week?

- A. 18
- B. 20
- C. 24
- D. 26

8

The table below shows the number of points Dmitri earned playing a game on each of the first 5 days of the week.

Game Points Earned	
Day	Number of Points Earned
Monday	800
Tuesday	1200
Wednesday	1500
Thursday	1000
Friday	1600
Saturday	?

What is the number of points Dmitri must earn on Saturday so that his mean number of points over the 6 days is exactly 1250?

- A. 1020
- B. 1220
- C. 1300
- D. 1400

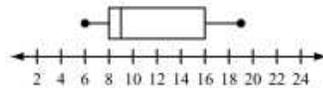
9

A community center offers classes for students.

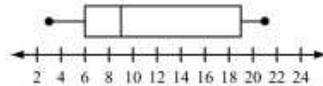
- The range of the number of students in each class is 13.
- The median number of students in each class is 9.

Which of the following box-and-whisker plots could represent the numbers of students in the classes?

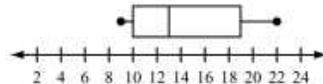
A. Numbers of Students in Classes



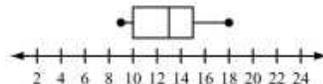
B. Numbers of Students in Classes



C. Numbers of Students in Classes

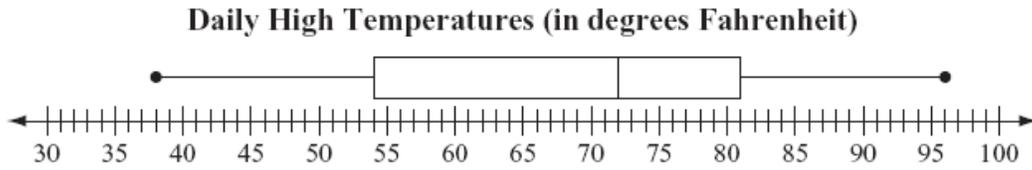


D. Numbers of Students in Classes



10

The box-and-whisker plot below shows the distribution of the daily high temperatures, in degrees Fahrenheit, in the town of Clifton during the year 2004.

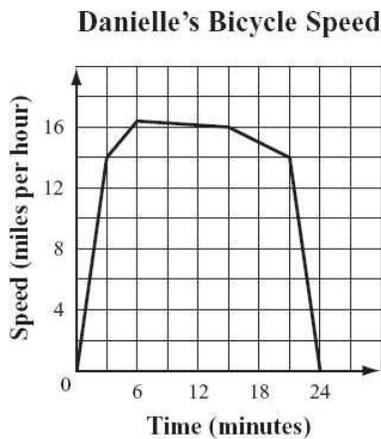


Based on the box-and-whisker plot, in which of the following intervals of temperatures is it most likely that exactly 50% of the daily high temperatures are located?

- A. 38°F to 54°F
- B. 38°F to 81°F
- C. 54°F to 72°F
- D. 54°F to 81°F

11

The graph below shows Danielle's speed, in miles per hour, during the 24 minutes she spent riding her bicycle one day.



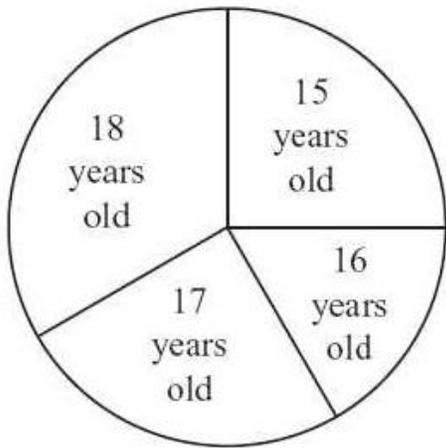
Which of the following is closest to the number of minutes that Danielle's speed was greater than 14 miles per hour?

- A. 3
- B. 9
- C. 18
- D. 21

12

The circle graph below shows the distribution of the ages of 24 team members.

Ages of Team Members

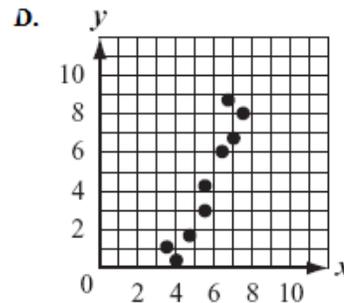
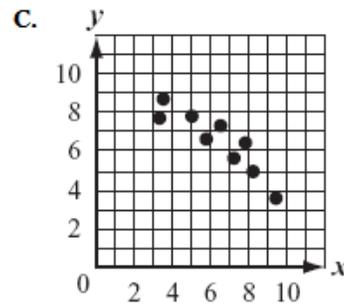
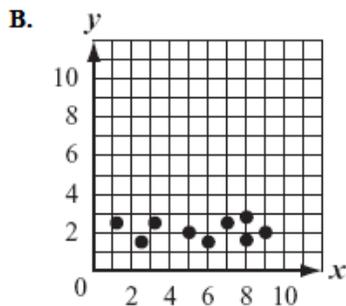
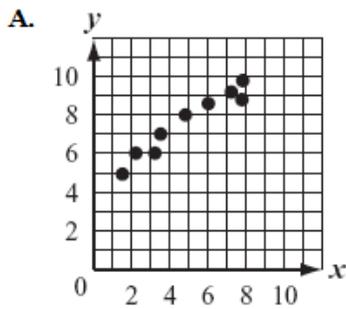


What is the median age, in years, of the team members?

- A. 15
- B. 16
- C. 17
- D. 18

13

Beth drew a scatterplot and then correctly drew the line of best fit for her scatterplot. The line of best fit had a slope of 2. Which of the following is most likely Beth's scatterplot?



14

A total of 100 people bought all of the tickets that were available for a school raffle.

The frequency table below shows the number of people who bought each number of tickets listed. For example, 27 people bought 2 tickets each.

Number of People Buying Raffle Tickets

Number of Tickets Bought	1	2	3	4	6
Number of People	38	27	20	9	6

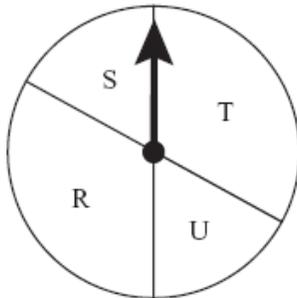
For these 100 people, what was the mean number of tickets bought per person?

- A. 1.24
- B. 2.24
- C. 2.50
- D. 3.20

15

On the spinner shown below, the sizes of the sections are as follows:

- Sections S and U are equal in size.
- Sections R and T are equal in size.
- The size of section S is half the size of section T.

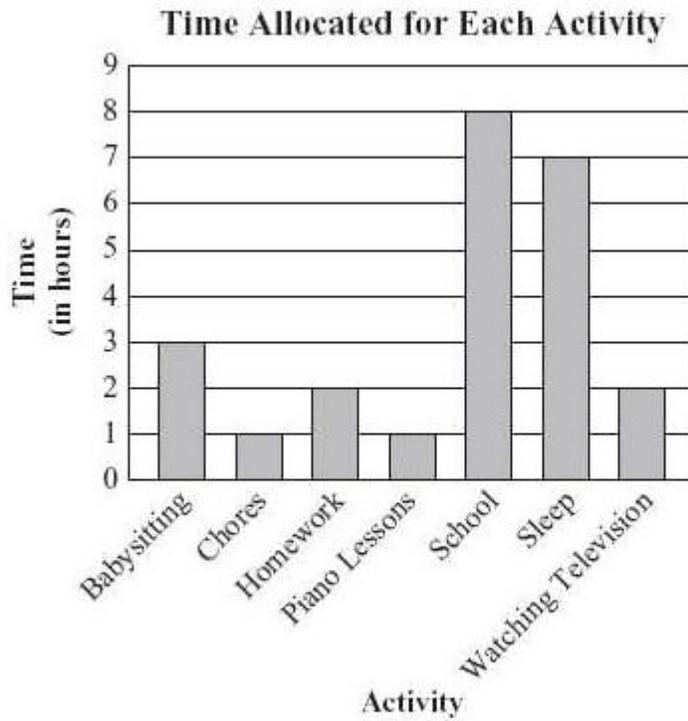


If Darryl spins the arrow one time, what is the probability that it will land on section S?

- A. $\frac{1}{6}$
- B. $\frac{1}{4}$
- C. $\frac{1}{3}$
- D. $\frac{1}{2}$

16

Justin drew the bar graph below to represent the time he allocated for each activity during one school day last week.



Based on the data in the graph, which of the following best represents the ratio of the time Justin allocated for homework to the time he allocated for school?

- A.** $\frac{1}{4}$
- B.** $\frac{5}{12}$
- C.** 4
- D.** 10

17

The stem-and-leaf plot below shows the prices, rounded to the nearest dollar, of 25 sweaters sold in the women's department at a store.

**Sweater Prices
(in dollars)**

```

2  0 1 1 2 2 4 8 9
3  1 1 2 3 4 4 6 8 9
4  1 2 3 5 5
5  0 2 5

```

Key

2 3 represents 23

What percent of the sweater prices are less than \$40?

- A. 17%
- B. 40%
- C. 50%
- D. 68%

18

The years of canoeing experience for each of 30 people who plan to go on a canoe trip are shown in the table below.

Years of Canoeing Experience

Number of Years	Number of People
Less than 3	9
3 through 6	12
More than 6 but less than 9	3
9 or more	6

In a circle graph that correctly shows this data, what is the measure of the central angle of the sector labeled "9 or more"?

- A. 6°
- B. 20°
- C. 72°
- D. 108°

19

The girls' soccer coach scheduled practice for 10 days during soccer season. The table below shows the number of players who attended practice each day.

**Practice Attendance
Each Day**

Day	Number of Players
1	12
2	13
3	16
4	10
5	9
6	12
7	14
8	12
9	15
10	16

What is the range of the number of players who attended practice over the 10 days?

- A. 4
- B. 7
- C. 9
- D. 16

20

Jeremy calculates his car's gas mileage every time he buys gas for his car. The chart below shows the data from the last 5 times he bought gas.

Gas Mileage for Jeremy's Car

Miles	Gallons of Gas	Gas Mileage (miles per gallon)
370	11.3	32.74
352	9.5	37.05
303	8.9	34.04
298	9.7	30.72
398	11.2	35.54

Based on the data in the chart, what is the range of gas mileage for Jeremy's car?

- A. 2.80 miles per gallon
- B. 4.31 miles per gallon
- C. 4.82 miles per gallon
- D. 6.33 miles per gallon

21	<p>A local car dealership has 100 vehicles on its lot. The chart below shows the numbers of cars, vans, and trucks, both new and used.</p> <p style="text-align: center;">Vehicles at Dealership</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Number of Cars</th> <th>Number of Vans</th> <th>Number of Trucks</th> </tr> </thead> <tbody> <tr> <td>New</td> <td style="text-align: center;">4</td> <td style="text-align: center;">7</td> <td style="text-align: center;">9</td> </tr> <tr> <td>Used</td> <td style="text-align: center;">36</td> <td style="text-align: center;">21</td> <td style="text-align: center;">23</td> </tr> </tbody> </table> <p>Based on the chart, what percent of the 100 vehicles are either new cars or new trucks?</p> <p>A. 11%</p> <p>B. 13%</p> <p>C. 20%</p> <p>D. 59%</p>		Number of Cars	Number of Vans	Number of Trucks	New	4	7	9	Used	36	21	23	
	Number of Cars	Number of Vans	Number of Trucks											
New	4	7	9											
Used	36	21	23											
22	<p>Leroy will arrive at Gary's house at a time between 2 p.m. and 4 p.m. this afternoon. At 2 p.m., Gary will begin to watch a two-hour television program. There are 15 minutes of commercials scheduled to be shown during each hour of the program.</p> <p>Assuming that Leroy's arrival time at Gary's house will be random, what is the probability that Leroy will arrive during a commercial?</p> <p>A. $\frac{1}{3}$</p> <p>B. $\frac{1}{4}$</p> <p>C. $\frac{1}{8}$</p> <p>D. $\frac{1}{16}$</p>	<p>23</p> <p>The table below shows the numbers of days Mallory and her friends went skating last month.</p> <p style="text-align: center;">Numbers of Days of Skating</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Name</th> <th>Number of Days</th> </tr> </thead> <tbody> <tr> <td>Angela</td> <td style="text-align: center;">12</td> </tr> <tr> <td>Chelsea</td> <td style="text-align: center;">7</td> </tr> <tr> <td>Latifa</td> <td style="text-align: center;">11</td> </tr> <tr> <td>Mallory</td> <td style="text-align: center;">12</td> </tr> </tbody> </table> <p>What are the mean and median for this set of data?</p> <p>A. mean = 10.5; median = 11.5</p> <p>B. mean = 10.5; median = 9</p> <p>C. mean = 12; median = 11.5</p> <p>D. mean = 12; median = 9</p>	Name	Number of Days	Angela	12	Chelsea	7	Latifa	11	Mallory	12		
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