

1. Professor Smith is doing a study on the number of geese that come to Green Lake each day. Her data shows that during the first week there were 27, 34, 22, 49, 38, 30, and 40 geese. How will she show her data using a stem-and-leaf plot?

A Number of Geese

1	0
2	2 7
3	0 4 8
4	9
5	0

B Number of Geese

1	0
2	2 7
3	4 8
4	9
5	

C Number of Geese

1	0
2	2 7
3	4 8
4	9
5	0

D Number of Geese

1	0
2	2 7
3	0 4 8
4	0 9
5	

2. The principal asked each classroom to report the number of bags of newspapers contributed to the recycle drive.

**Greenville School
Bags of
Newspapers Collected**

1	3 7 7 9
2	3 3 7 8 8
3	3 6 7
4	2 4 9
5	1 2
6	1 3

How many classrooms turned in 40 or more bags of newspapers?

- A 3
B 5
C 6
D 7

3. Lori collected data on whale groups in the Pacific Ocean.

Group number	1	2	3	4	5	6	7	8	9	10
Number of whales	15	23	19	31	27	36	25	20	19	23

Which stem-and-leaf plot correctly displays her data?

A

1	5 9 9
2	0 3 3 5 7
3	1 6

B

1	5 9
2	0 3 5 7
3	1 6

C

1	1 5
2	1 9
3	1 9
4	2 0
5	2 3
6	2 3
7	2 5
8	2 7
9	3 1
10	3 6

D

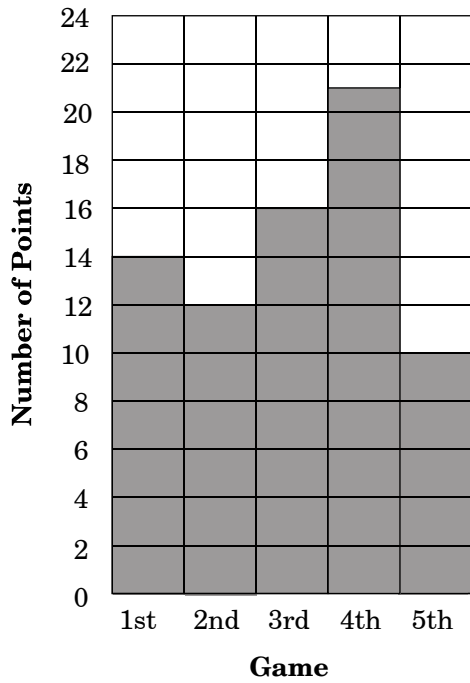
1	1 5
2	2 3
3	1 9
4	3 1
5	2 7
6	3 6
7	2 5
8	2 0
9	1 9
10	2 3

4. Janice scored points in the first five basketball games she played.

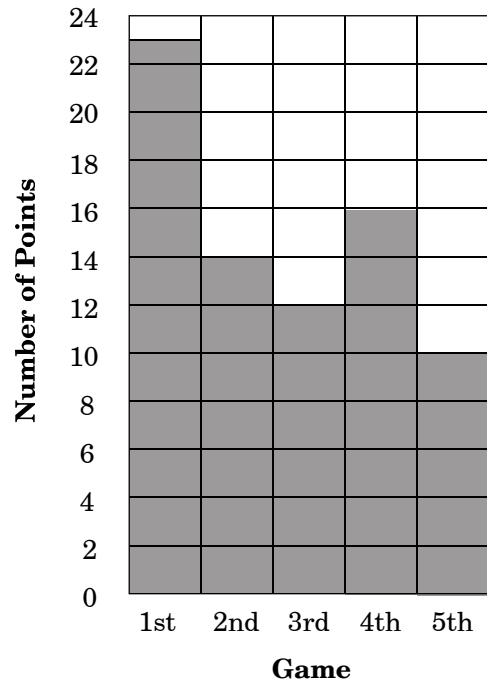
- Game 1: 23 points
- Game 2: 14 points
- Game 3: 12 points
- Game 4: 16 points
- Game 5: 10 points

Which graph shows this information?

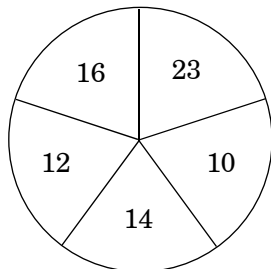
A Janice's Scoring



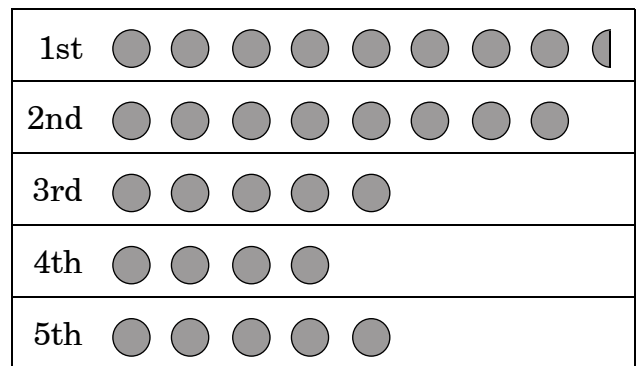
B Janice's Scoring



C Janice's Scoring (5 games)



D Janice's Scoring

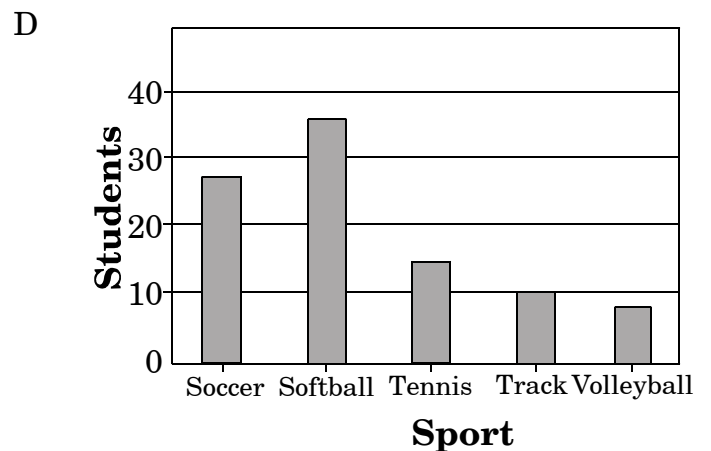
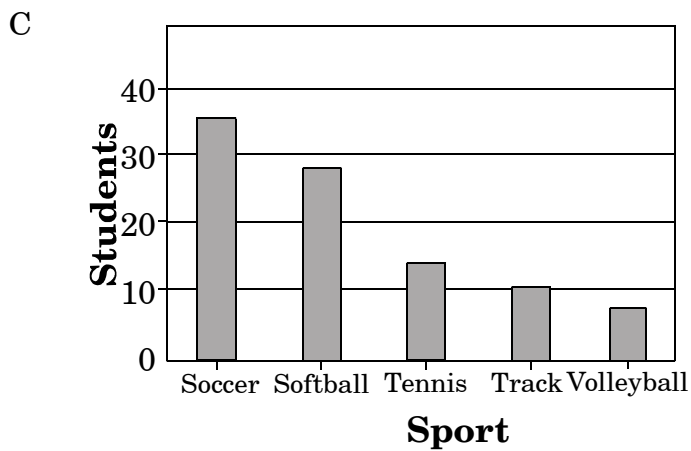
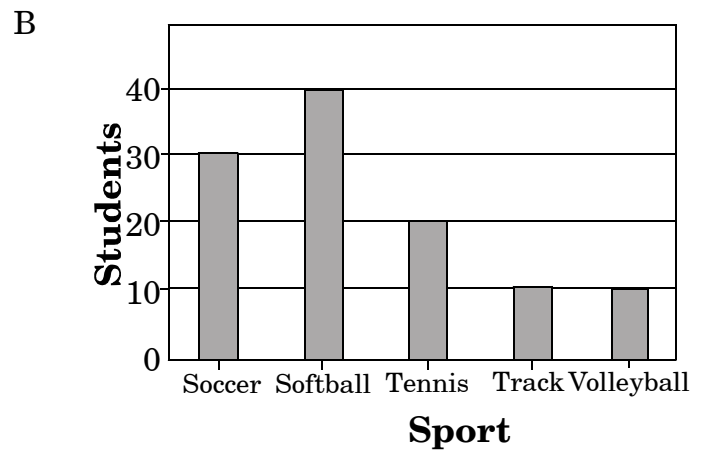
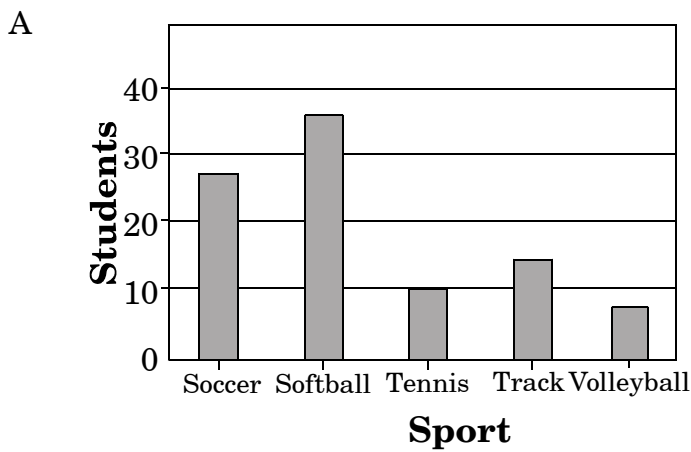


● = 2 points

5. Below are the results of a student activity survey.

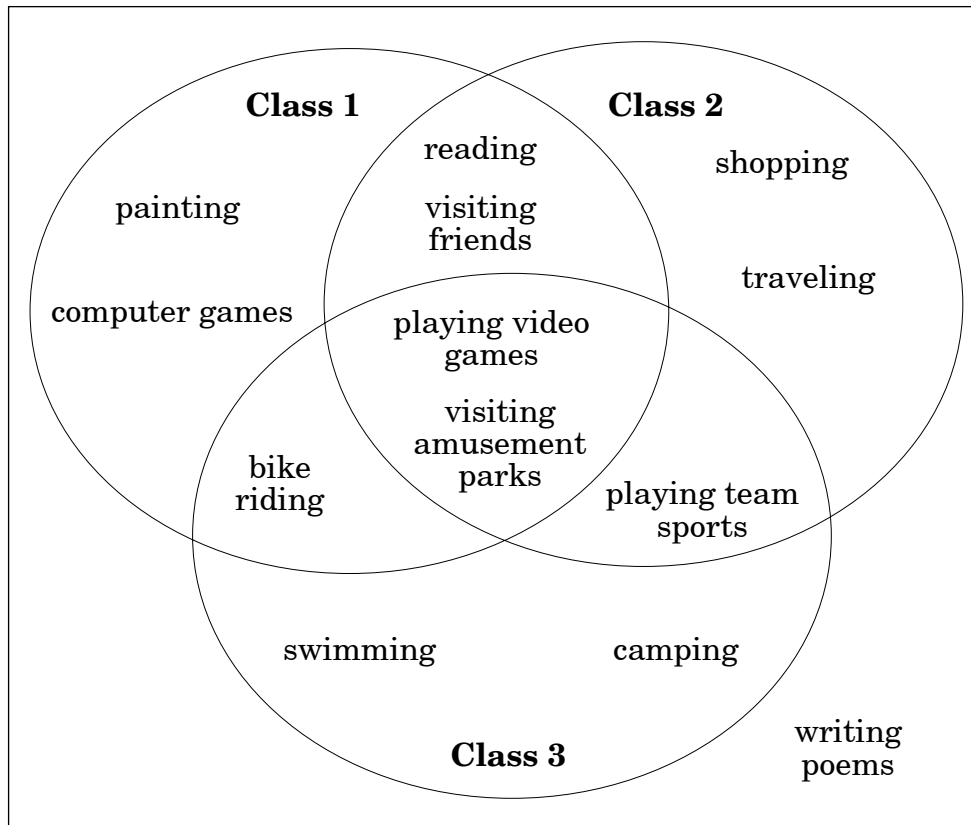
Sport	Students
Soccer	28
Softball	36
Tennis	15
Track	10
Volleyball	8

Which bar graph *most accurately* shows how many students played each sport?



6. Students in three fifth-grade classes made lists of favorite summer activities. Some activities were on all the lists, and others were only on 1 or 2 lists.

Summer Activities

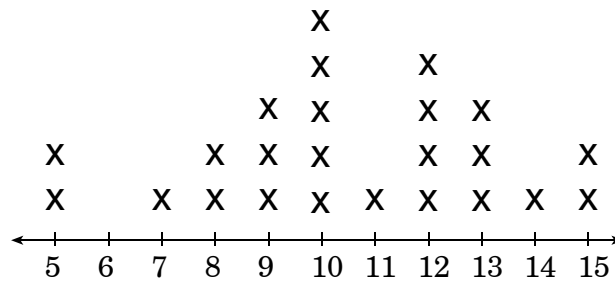


Which activity is found on all three lists?

- A playing video games
- B playing team sports
- C bike riding
- D writing poems

7. Marcus wants to make a circle graph for a project in math class. For which data would a circle graph be the best choice?
- A the way he spent his week's money
 - B the batting average of each ball player on the school's team
 - C the age of each of his classmates
 - D the list of teachers participating in a school sporting event






8. Rodrigo surveyed his classmates and recorded their responses in a graphic display.



Which data is **most likely** displayed by his line plot?

- A number of students with green eyes
- B number of windows in a house
- C number of pets owned by the students
- D number of brothers and sisters of each student

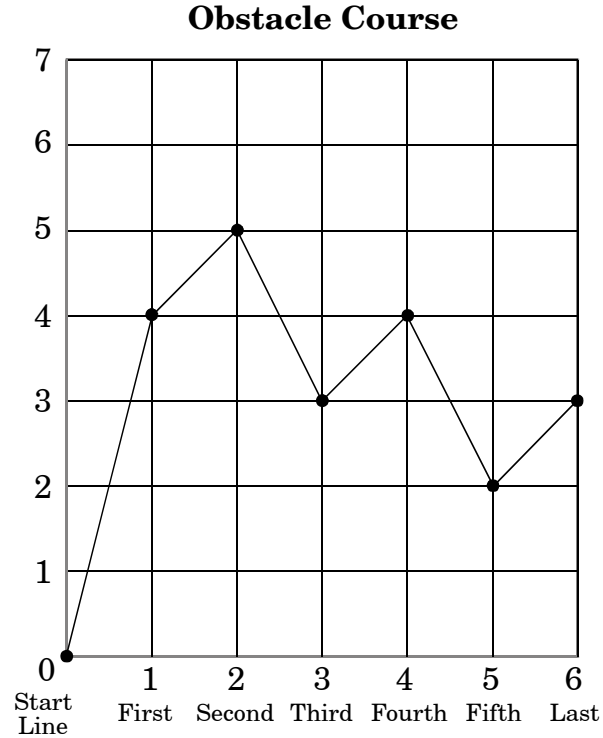
9. Central Elementary School held a reading contest by grade level for the first three months of the school year.

Classes	Total Number of Stories Read
Grade 2	
Grade 3	
Grade 4	
Grade 5	
Each  stands for 10 stories	

How many more stories did the students in grade 2 read than the students in grade 4?

- A 1
- B 2
- C 10
- D 20

10. To earn his bicycle safety certificate, Trevor had to ride his bicycle through an obstacle course. Trevor studied the map before his run.

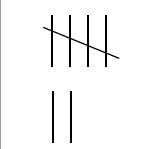
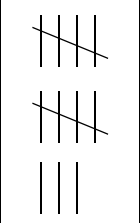
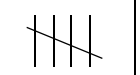
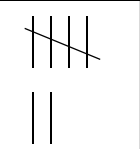


What are the coordinates of the next to last obstacle if the course begins at $(0, 0)$?

- A $(2, 5)$
- B $(4, 4)$
- C $(5, 2)$
- D $(6, 3)$

11. The football coach kept a tally of completed passes in the first game of the season.

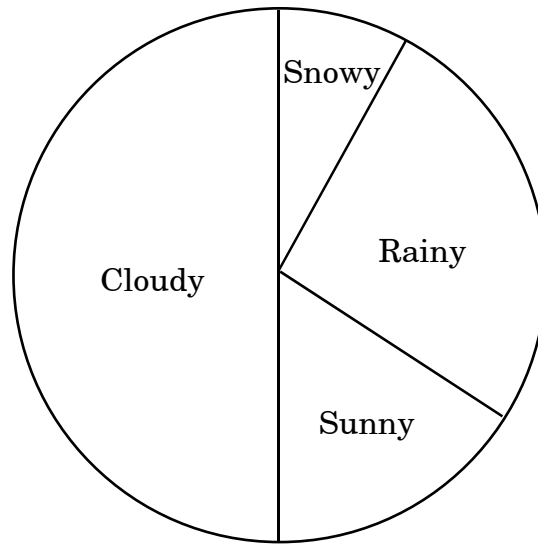
Completed Passes

First Quarter	Second Quarter	Third Quarter	Fourth Quarter
			

How many fewer passes were completed in the fourth quarter than the second quarter?

- A 5
- B 6
- C 7
- D 10

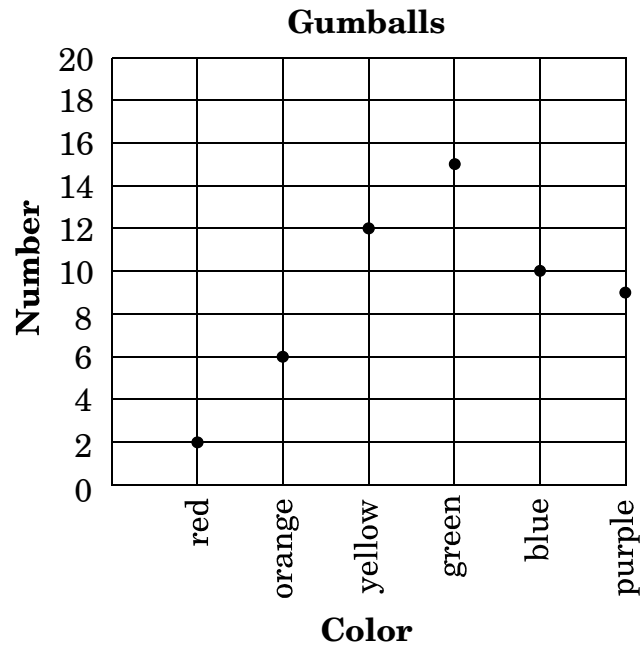
12.

**North Carolina Weather
in December**

Which is a correct interpretation of this circle graph?

- A It rained less often than it snowed.
- B It was sunny more often than it was cloudy.
- C It was rainy less often than it was cloudy.
- D It was snowy more often than it was sunny.

13. Mr. Cray's students graphed the number of gumballs they had in a jar by color. Which two colors combined form the same amount as the green gumballs?



- A orange and purple
B red and blue
C orange and blue
D red and yellow

14.

Math Test

Name	Alfonso	Beth	Karla	Rory	Yin
Score	95	78	80	83	95

What is the median score on this math test?

- A 80
- B 83
- C 85
- D 95

15. Alex was taking a survey of which foods people like to eat with cheeseburgers. He found that more people liked french fries than any other food. Which term should be used to describe this information?

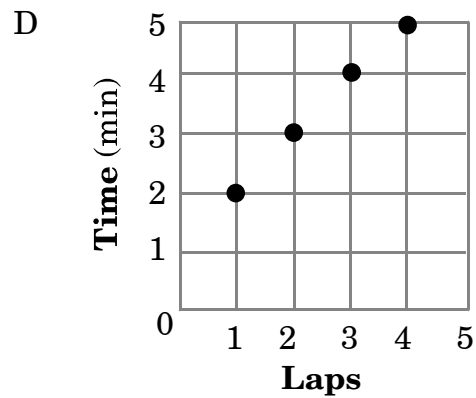
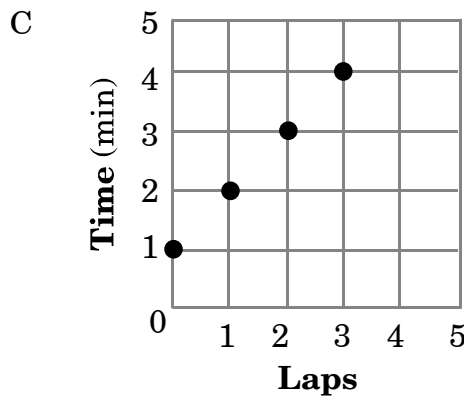
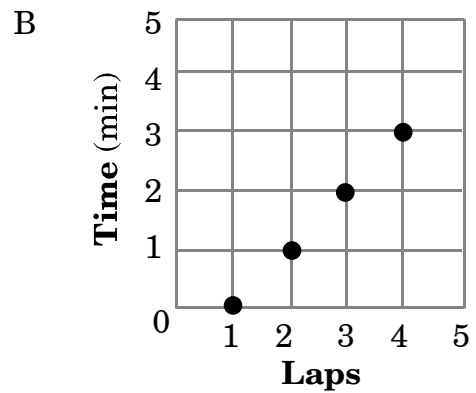
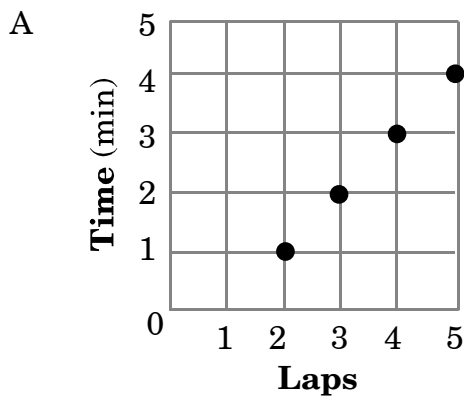
- A average
- B median
- C mode
- D range

16. Aaron made a table of the time it takes him to run laps.

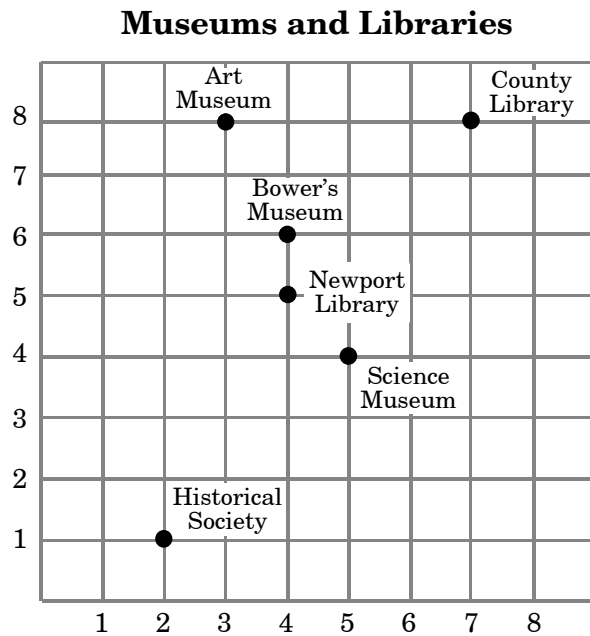
Aaron's Running Times

Laps	Time
2	1 min
3	2 min
4	3 min
5	4 min

Which grid correctly plots Aaron's data?



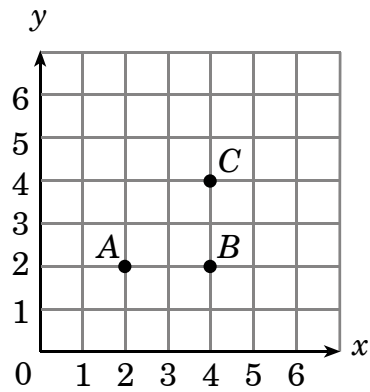
17. Dana made a grid to show the locations of the libraries and museums in her city.



What is the location of the Newport Library?

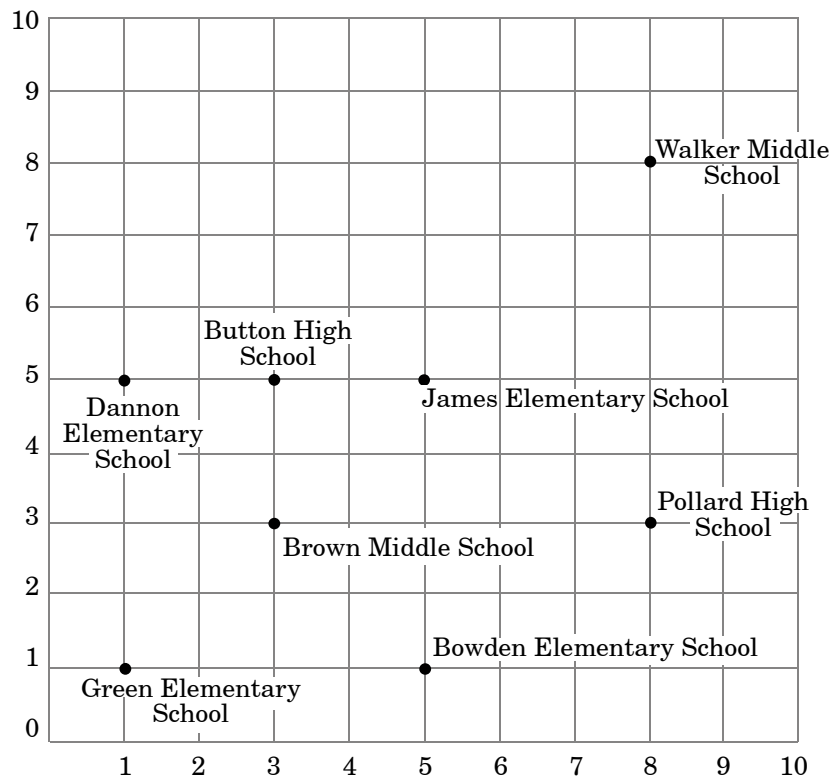
- A (2, 1)
- B (4, 5)
- C (5, 4)
- D (7, 8)

18. Using points A , B , and C as shown, which ordered pair below is needed to form a square?



- A (1, 4)
- B (2, 4)
- C (4, 1)
- D (4, 2)

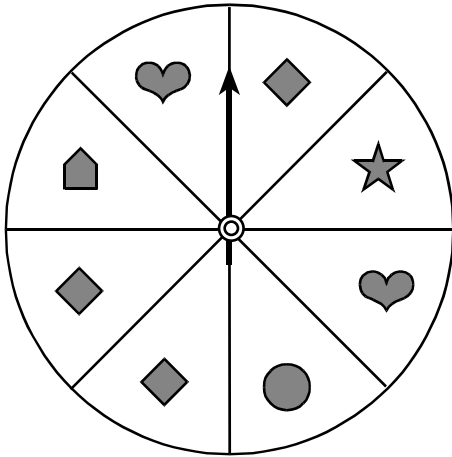
19. The city council uses a grid when they talk about the locations of the city's schools.



What is the location of Bowden Elementary School?

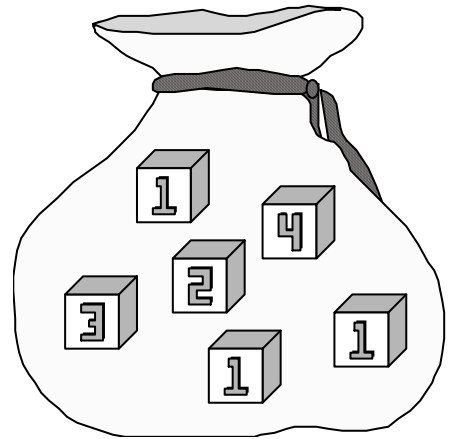
- A (1,5)
- B (3,3)
- C (5,1)
- D (5,5)

20. What is the probability that this fair spinner will land on a heart?



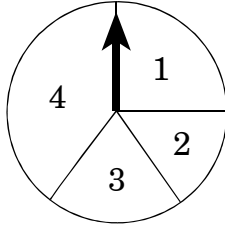
- A $\frac{1}{8}$
- B $\frac{2}{8}$
- C $\frac{2}{6}$
- D $\frac{3}{8}$
21. Marcie marked the faces of a fair cube with numbers for a probability experiment. If the probability of getting a multiple of 3 is $\frac{3}{6}$, how could she have marked the faces of her cube?
- A 3, 6, 9, 12, 15, 18
- B 2, 4, 6, 8, 10, 12
- C 3, 5, 9, 11, 15, 17
- D 5, 7, 9, 11, 13, 15

22. Justin put the following blocks in a bag. Without looking, Justin has the **greatest** probability of picking which number?



- A 1
- B 2
- C 3
- D 4

23. Allie was playing a game with a friend. A fair spinner was used to determine how many spaces each person should move on a turn. It was Allie's turn to spin.



How many spaces on the game board is she **most likely** to move?

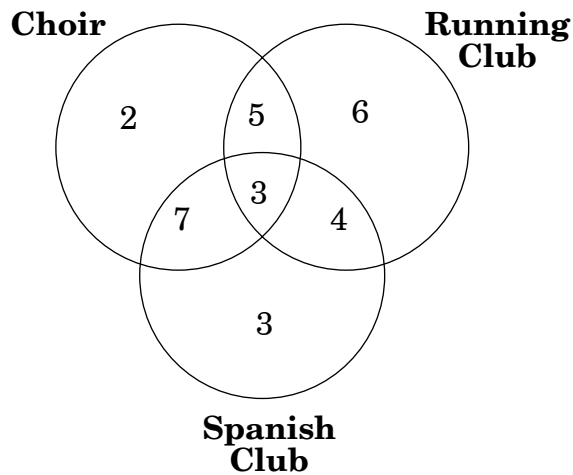
- A 1
B 2
C 3
D 4
24. Mrs. Jackson put 24 marbles in a bag. There were six green, four red, eight blue, and six yellow marbles. She picked one marble from the bag without looking. What is the probability that she picked a color other than blue?

- A $\frac{8}{24}$
B $\frac{12}{24}$
C $\frac{16}{24}$
D $\frac{18}{24}$

25. During a regular school week, Joseph brings his lunch on four days and buys a lunch one day each week. What is the probability he will bring his lunch on Tuesday?

- A $\frac{1}{7}$
B $\frac{1}{5}$
C $\frac{4}{7}$
D $\frac{4}{5}$

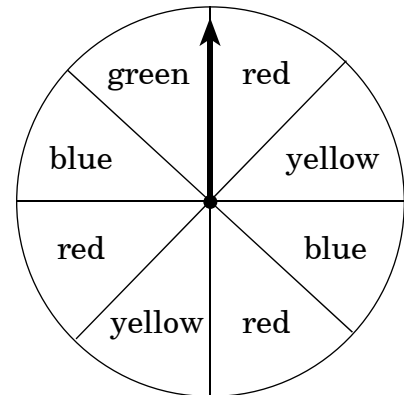
26. This Venn diagram shows the number of students in a group that belong to the running club, the Spanish club, and the choir.



What is the probability that a student chosen at random from this group is in both the choir and the running club?

- A $\frac{5}{30}$
- B $\frac{3}{17}$
- C $\frac{8}{30}$
- D $\frac{16}{30}$

27. Maria divided a fair spinner into 8 equal sections and colored the sections.



If she spins one time, what is the probability the spinner will land on blue or yellow?

- A $\frac{1}{8}$
- B $\frac{1}{4}$
- C $\frac{3}{8}$
- D $\frac{4}{8}$

End of Goal 4 Sample Items

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Answers to EOG Mathematics Grade 4 Sample Items

Goal 4

- 1. Objective 4.01**
Interpret and construct stem-and-leaf plots.
Thinking Skill: Analyzing **Correct Answer:** D
- 2. Objective 4.01**
Interpret and construct stem-and-leaf plots.
Thinking Skill: Analyzing **Correct Answer:** D
- 3. Objective 4.01**
Interpret and construct stem-and-leaf plots.
Thinking Skill: Analyzing **Correct Answer:** A
- 4. Objective 4.02**
Display data in a variety of ways including circle graphs. Discuss the advantages and disadvantages of each form including ease of creation and purpose of the graph.
Thinking Skill: Analyzing **Correct Answer:** B
- 5. Objective 4.02**
Display data in a variety of ways including circle graphs. Discuss the advantages and disadvantages of each form including ease of creation and purpose of the graph.
Thinking Skill: Analyzing **Correct Answer:** D
- 6. Objective 4.02**
Display data in a variety of ways including circle graphs. Discuss the advantages and disadvantages of each form including ease of creation and purpose of the graph.
Thinking Skill: Analyzing **Correct Answer:** A
- 7. Objective 4.02**
Display data in a variety of ways including circle graphs. Discuss the advantages and disadvantages of each form including ease of creation and purpose of the graph.
Thinking Skill: Analyzing **Correct Answer:** A
- 8. Objective 4.03**
Collect, organize, and display data from surveys, research, and classroom experiments, including data collected over time. Include data from other disciplines such as science, physical education, social studies, and the media.
Thinking Skill: Analyzing **Correct Answer:** B

Answers to EOG Mathematics Grade 4 Sample Items

Goal 4

- 9. Objective 4.04**
Interpret information orally and in writing from charts, tables, tallies, and graphs.
Thinking Skill: Integrating **Correct Answer:** C
- 10. Objective 4.04**
Interpret information orally and in writing from charts, tables, tallies, and graphs.
Thinking Skill: Analyzing **Correct Answer:** C
- 11. Objective 4.04**
Interpret information orally and in writing from charts, tables, tallies, and graphs.
Thinking Skill: Analyzing **Correct Answer:** B
- 12. Objective 4.04**
Interpret information orally and in writing from charts, tables, tallies, and graphs.
Thinking Skill: Analyzing **Correct Answer:** C
- 13. Objective 4.04**
Interpret information orally and in writing from charts, tables, tallies, and graphs.
Thinking Skill: Analyzing **Correct Answer:** A
- 14. Objective 4.05**
Use range, median, and mode to describe a set of data.
Thinking Skill: Integrating **Correct Answer:** B
- 15. Objective 4.05**
Use range, median, and mode to describe a set of data.
Thinking Skill: Knowledge **Correct Answer:** C
- 16. Objective 4.06**
Plot points that represent ordered pairs of data from many different sources such as economics, science experiments, and recreational activities.
Thinking Skill: Generating **Correct Answer:** A

Answers to EOG Mathematics Grade 4 Sample Items

Goal 4

17. Objective 4.06

Plot points that represent ordered pairs of data from many different sources such as economics, science experiments, and recreational activities.

Thinking Skill: Analyzing **Correct Answer:** B

18. Objective 4.06

Plot points that represent ordered pairs of data from many different sources such as economics, science experiments, and recreational activities.

Thinking Skill: Generating **Correct Answer:** B

19. Objective 4.06

Plot points that represent ordered pairs of data from many different sources such as economics, science experiments, and recreational activities.

Thinking Skill: Analyzing **Correct Answer:** C

20. Objective 4.07

Investigate and discuss probabilities by experimenting with devices that generate random outcomes such as coins, number cubes, spinners.

Thinking Skill: Analyzing **Correct Answer:** B

21. Objective 4.07

Investigate and discuss probabilities by experimenting with devices that generate random outcomes such as coins, number cubes, spinners.

Thinking Skill: Analyzing **Correct Answer:** C

22. Objective 4.07

Investigate and discuss probabilities by experimenting with devices that generate random outcomes such as coins, number cubes, spinners.

Thinking Skill: Analyzing **Correct Answer:** A

23. Objective 4.07

Investigate and discuss probabilities by experimenting with devices that generate random outcomes such as coins, number cubes, spinners.

Thinking Skill: Analyzing **Correct Answer:** D

24. Objective 4.08

Use a fraction to describe the probability of an event and report the outcome of an experiment.

Thinking Skill: Applying **Correct Answer:** C

25. Objective 4.08

Use a fraction to describe the probability of an event and report the outcome of an experiment.

Thinking Skill: Applying **Correct Answer:** D

Answers to EOG Mathematics Grade 4 Sample Items

Goal 4

26. Objective 4.08

Use a fraction to describe the probability of an event and report the outcome of an experiment.

Thinking Skill: Applying

Correct Answer: C

27. Objective 4.08

Use a fraction to describe the probability of an event and report the outcome of an experiment.

Thinking Skill: Analyzing

Correct Answer: D