

Classwork Review - Statistical Measures and Data Display

1. **B.E.S.T. Test Prep** What is the mean of the data set {4.2, 3.5, 4.55, 2.75, 2.25}?

A. 3.4 B. 3.45 C. 3.55 D. 3.5

Grade 6 Accel: FL 2023>Chapter 11>Section 11.2: Mean>11.2: Practice (13 - 28)> Question #21

2. Consider the data set below.

{15, 18, 13, 11, 12, 21, 9, 11}

- a. Find the mean, median, and mode of the data.

The mean is .

The median is .

The mode is .

- b. Each value in the data set is decreased by 7. How does this change affect the mean, median, and mode?

The mean, median, and mode do not change.
 The median and mode decrease by 7. The mean does not change.
 The mean and mode decrease by 7. The median does not change.
 The mean, median, and mode all decrease by 7.

Grade 6 Accel: FL 2023>Chapter 11>Section 11.3: Measures of Center>11.3: In-Class Practice (6 - 7)> Question #6

3. Find the median of the data.

3,5,7,9,11,3,8

The median is .

Find the mode(s) of the data.

3
 5
 8
 9
 There is no mode.

Grade 6 Accel: FL 2023>Chapter 11>Section 11.3: Measures of Center>11.3: Practice (11 - 41)> Question #13

4. Find the median of the data.

14,19,16,13,16,14

The median is .

Find the mode(s) of the data.

- 13
 14
 16
 19
 There is no mode.

Grade 6 Accel: FL 2023>Chapter 11>Section 11.3: Measures of Center>11.3: Practice (11 - 41)> Question #14

5. Find the median of the data.

93,81,94,71,89,92,94,99

The median is .

Find the mode(s) of the data.

- 71
 93
 94
 99
 There is no mode.

Grade 6 Accel: FL 2023>Chapter 11>Section 11.3: Measures of Center>11.3: Practice (11 - 41)> Question #15

6. Identify any outliers in the data set. Select all that apply.

{2, 9, 10, 10, 12, 14, 15, 15, 24}

- | | |
|-----------------------------|-------------------------------------|
| <input type="checkbox"/> 2 | <input type="checkbox"/> 14 |
| <input type="checkbox"/> 9 | <input type="checkbox"/> 15 |
| <input type="checkbox"/> 10 | <input type="checkbox"/> 24 |
| <input type="checkbox"/> 12 | <input type="checkbox"/> No outlier |

Grade 6 Accel: FL 2023>Chapter 11>Section 11.4: Measures of Variation>11.4: In-Class Practice (5 - 7)> Question #6

7. Find and interpret the range of the data.

28, 42, 36, 23, 14, 47, 40

The range is units.

The data vary by no more than units.

Grade 6 Accel: FL 2023>Chapter 11>Section 11.4: Measures of Variation>11.4: Practice (12 - 44)> Question #15

8. **MODELING REAL LIFE** The table shows the number of points scored by players on a sixth-grade basketball team in a season.

Points Scored					
21	53	74	82	84	93
103	108	116	122	193	

- a. Find the range and interquartile range of the data.

The range is points.

The interquartile range is points.

- b. Identify the outlier(s) in the data set.

- 21 points
 53 points
 122 points
 193 points

Find the range and interquartile range of the data set without the outlier(s).

The range without the outlier(s) is points.

The interquartile range without the outlier(s) is points.

Which measure does the outlier or outliers affect more?

- Range
 Interquartile range

- c. Which measure better represents the data?

- Range
 Interquartile range

9. **MODELING REAL LIFE** The tables show the ages of the finalists for two reality singing competitions.

Ages for Show A	
18	17
15	21
22	16
18	28
24	21

Ages for Show B	
21	20
23	13
15	18
17	22
36	25

- a. Find the mean, median, range, and interquartile range of the ages for each show.

	Show A	Show B
Mean	<input type="checkbox"/>	<input type="checkbox"/>
Median	<input type="checkbox"/>	<input type="checkbox"/>
Range	<input type="checkbox"/>	<input type="checkbox"/>
Interquartile Range	<input type="checkbox"/>	<input type="checkbox"/>

Compare the results.

B / U ☰ T² T₂ 0 / 10000 Word Limit

- b. Which measures best represent the data for each show?

Show A:

Show B:

mean
 median
 mode
 range
 IQR

- c. A 21-year-old is voted off Show A, How do these changes affect the measures in part (a)? Explain.

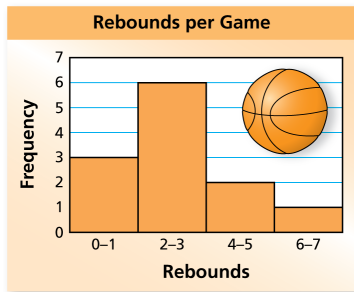
B / U ☰ T² T₂ 0 / 10000 Word Limit

The 36-year-old is voted off Show B. How do these changes affect the measures in part(a)? Explain.

B / U ☰ T^2 T_2 0 / 10000 Word Limit

Grade 6 Accel: FL 2023>Chapter 11>Section 11.4: Measures of Variation>11.4: Practice (12 - 44)>Question #43

10. The histogram shows the numbers of rebounds per game for a middle school basketball player in a season.



a. Which interval contains the most data values?

- 0-1 rebounds
- 2-3 rebounds
- 4-5 rebounds
- 6-7 rebounds

b. How many games did the player play during the season?

The player played games.

c. In what percent of the games did the player have 4 or more rebounds?

The player had 4 or more rebounds in % of the games.

Grade 6 Accel: FL 2023>Chapter 11>Section 11.5: Histograms>11.5: In-Class Practice (6 - 7)>Question #6

11. Find and interpret the interquartile range of the data.

Blog Posts			
7	5	12	4
20	11	9	15
4	8	6	12

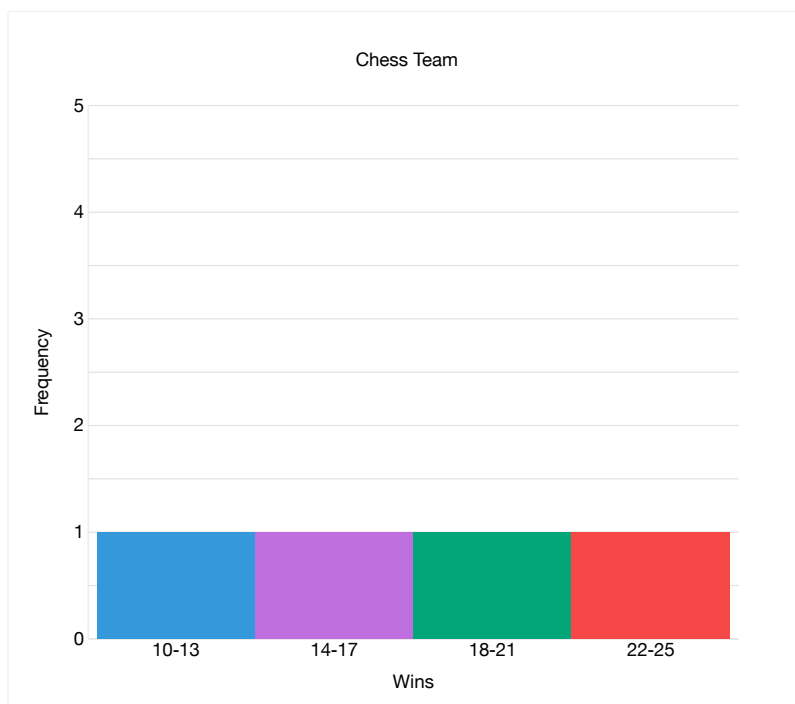
The interquartile range is units.

The middle half of the data vary by no more than units

Grade 6 Accel: FL 2023>Chapter 11>Section 11.5: Histograms>11.5: Review & Refresh (1 - 7)>Question #1

12. Display the data in a histogram below.

Chess Team	
Wins	Frequency
10-13	3
14-17	4
18-21	4
22-25	2



Identify any gaps, clusters, and outliers.

Gaps:

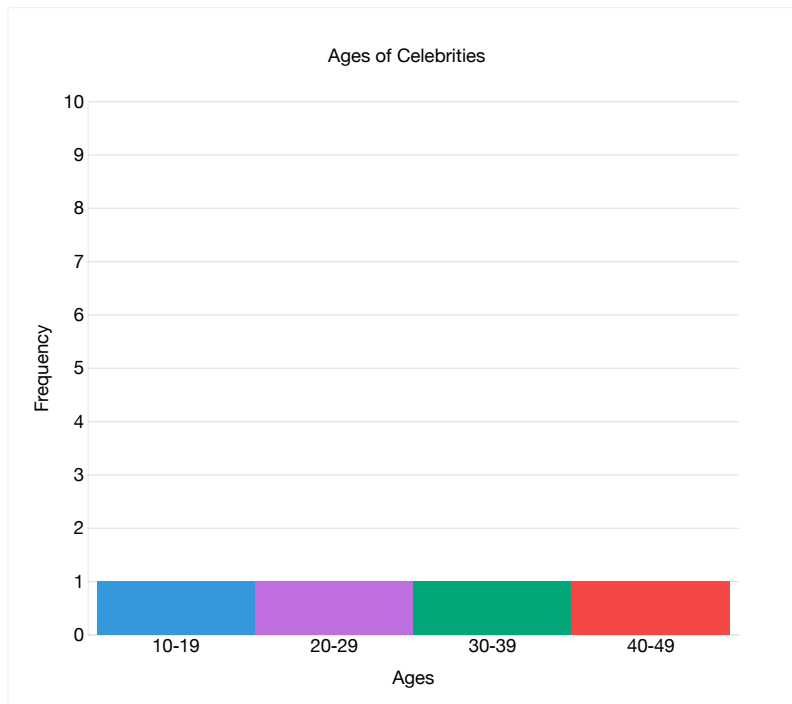
Clusters:

Outliers:

10-13
 14-17
 18-21
 22-25
 None

13. Display the data in the histogram below.

Ages of Celebrities	
Ages	Frequency
10-19	2
20-29	6
30-39	8
40-49	4



Identify any gaps, clusters, and outliers.

Gaps:

Clusters:

Outliers:

10-19
 20-39
 30-39
 40-49
 None

14. **WRITING** Explain in your own words what it means for a distribution to be (a) skewed left, (b) symmetric, and (c) skewed right.

a. skewed left

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b. symmetric

B / U ☰ T^2 T_2 0 / 10000 Word Limit

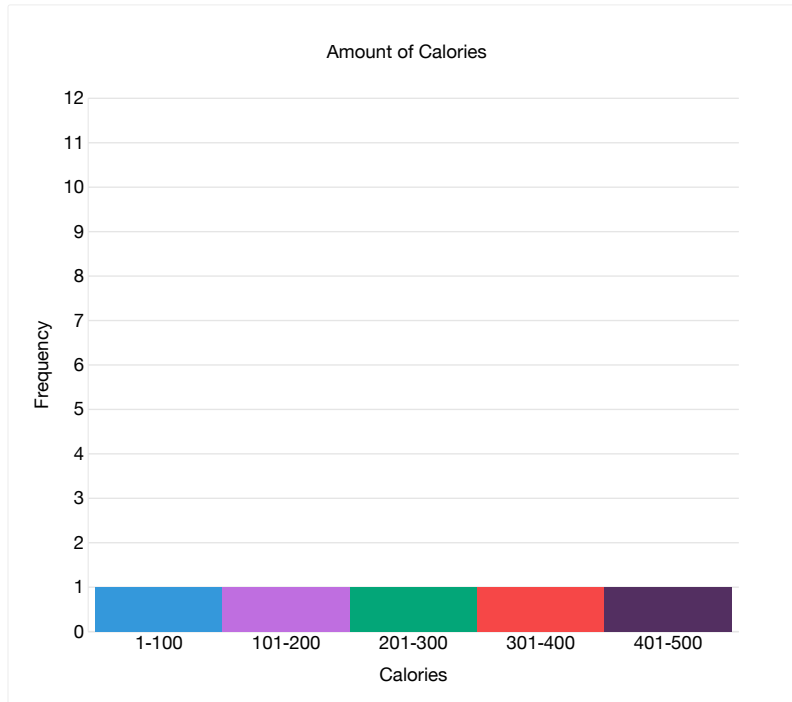
c. skewed right

B / U ☰ T^2 T_2 0 / 10000 Word Limit

Grade 6 Accel: FL 2023>Chapter 11>Section 11.6: Shapes of Distributions>11.6: In-Class Practice (3 - 5)> Question #3

15. Display the data shown in a histogram.

Calories	Frequency
1-100	2
101-200	8
201-300	10
301-400	5
401-500	3

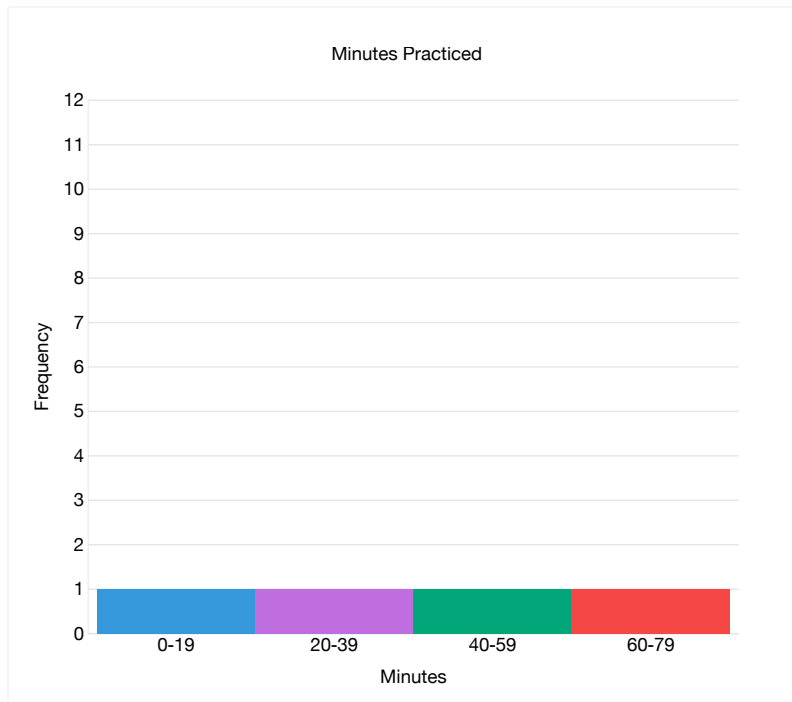


Describe the shape of the distribution.

- skewed right
- skewed left
- symmetric

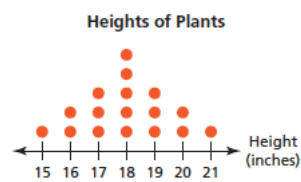
16. Display the data in a histogram.

Minutes Practiced	
Minutes	Frequency
0-19	8
20-39	10
40-59	11
60-79	2



Grade 6 Accel: FL 2023>Chapter 11>Section 11.6: Shapes of Distributions>11.6: Review & Refresh (1 - 5)> Question #2

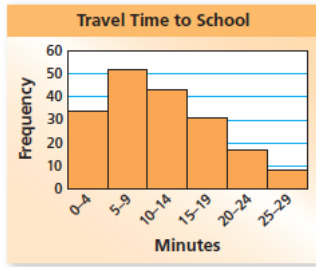
17. Describe the shape of the distribution.



- skewed right
- skewed left
- symmetric

Grade 6 Accel: FL 2023>Chapter 11>Section 11.6: Shapes of Distributions>11.6: Practice (6 - 17)> Question #9

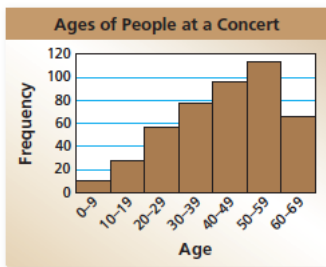
18. Describe the shape of the distribution.



- skewed right
- skewed left
- symmetric

Grade 6 Accel: FL 2023>Chapter 11>Section 11.6: Shapes of Distributions>11.6: Practice (6 - 17)> Question #10

19. Describe the shape of the distribution.

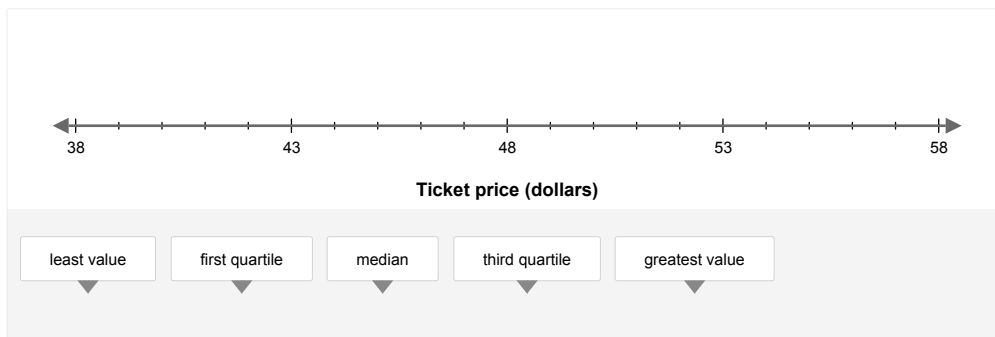


- skewed right
- skewed left
- symmetric

Grade 6 Accel: FL 2023>Chapter 11>Section 11.6: Shapes of Distributions>11.6: Practice (6 - 17)> Question #11

20. Use the number line to identify the least value, first quartile, median, third quartile, and greatest value of the data.

Ticket prices (dollars): 39, 42, 40, 47, 38, 39, 44, 55, 44, 58, 45

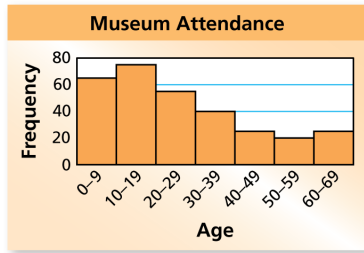


Identify the shape of the distribution.

- skewed right
- skewed left
- symmetric

Grade 6 Accel: FL 2023>Chapter 11>Section 11.7: Box-and-Whisker Plots>11.7: In-Class Practice (4 - 7)> Question #5

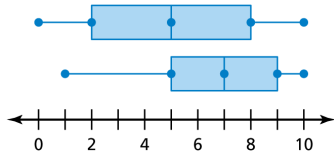
21. Describe the shape of the distribution.



- symmetric
- skewed left
- skewed right

Grade 6 Accel: FL 2023>Chapter 11>Section 11.7: Box-and-Whisker Plots>11.7: Review & Refresh (1 - 9)> Question #2

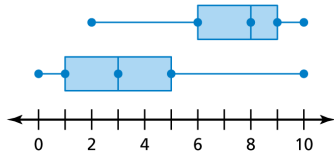
22. Compare the data in the box-and-whisker plots.



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Grade 6 Accel: FL 2023>Chapter 11>Section 11.7: Box-and-Whisker Plots>11.7: Practice (10 - 37)> Question #10

23. Compare the data in the box-and-whisker plots.

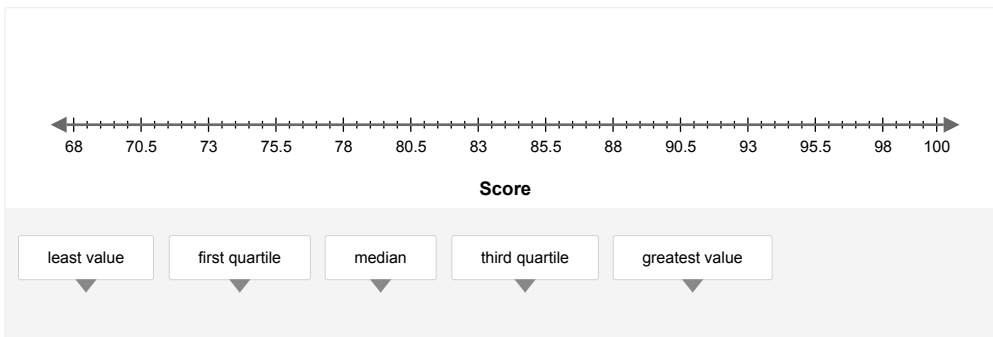


B / U \equiv T^2 T_2 0 / 10000 Word Limit

Grade 6 Accel: FL 2023>Chapter 11>Section 11.7: Box-and-Whisker Plots>11.7: Practice (10 - 37)> Question #11

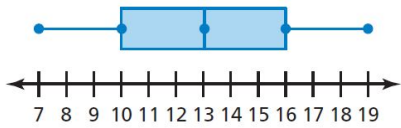
24. Use the number line to identify the least value, first quartile, median, third quartile, and greatest value of the data.

Science test scores: 85, 76, 99, 84, 92, 95, 68, 100, 93, 88, 87, 85



Grade 6 Accel: FL 2023>Chapter 11>Section 11.7: Box-and-Whisker Plots>11.7: Practice (10 - 37)> Question #15

25. Identify the five-number summary for each box-and-whisker plot.



Q₁

Q₂

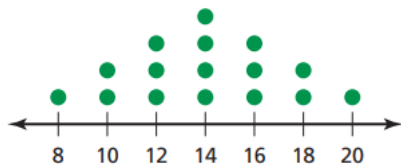
median

least value

greatest value

Grade 6 Accel: FL 2023>Chapter 11>Section 11.7: Box-and-Whisker Plots>11.7: Practice (10 - 37)> Question #20

26. Choose appropriate measures to describe the center and the variation.



The appropriate measure to describe the center is or .

The appropriate measure to describe the variation is or .

Explain your reasoning.

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Find the measures you chose.

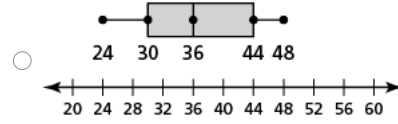
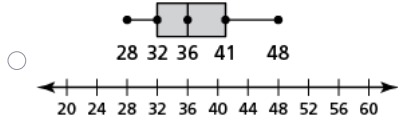
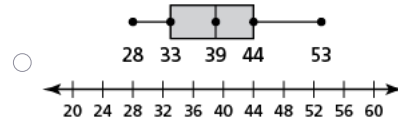
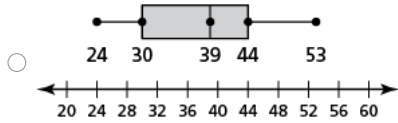
The value of the measure of center is .

The value of the measure of variation is .

Grade 6 Accel: FL 2023>Chapter 11>Section 11.8: Choosing Appropriate Measures>11.8: In-Class Practice (3 - 5)> Question #4

27. Identify the box-and-whisker plot for the data.

39, 48, 33, 24, 30, 44, 36, 41, 39, 28, 53



Grade 6 Accel: FL 2023>Chapter 11>Section 11.8: Choosing Appropriate Measures>11.8: Review & Refresh (1 - 6)> Question #2

28. Find the mean, median, range, and IQR of the data set.

{24, 25, 27, 27, 23, 29, 26, 26, 26, 25, 28}

mean:

median:

range:

IQR:

Which measure of center best describes the data set?

- Mean
- Median
- Mode
- Range
- IQR

Which measures of variation best describe the data set?

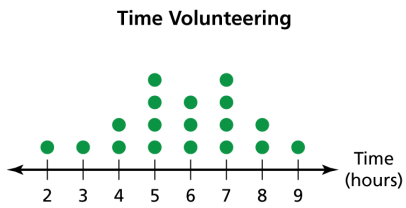
- Mean
- Median
- Mode
- Range
- IQR

Explain your reasoning.

B / U ☰ T² T₂ 0 / 10000 Word Limit

Grade 6 Accel: FL 2023>Chapter 11>Section 11.8: Choosing Appropriate Measures>11.8: Practice (7 - 20)> Question #8

29. Choose the most appropriate measures to describe the center and the variation.

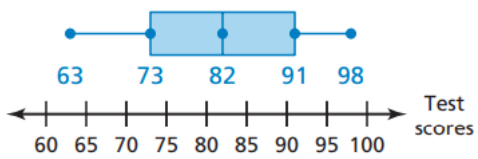


The is the most appropriate measure to describe the center.

The is the most appropriate measure to describe the variation.

Grade 6 Accel: FL 2023>Chapter 11>Section 11.8: Choosing Appropriate Measures>11.8: Practice (7 - 20)> Question #10

30. Choose the most appropriate measures to describe the center and the variation.



The is the most appropriate measure to describe the center.

The is the most appropriate measure to describe the variation.

Grade 6 Accel: FL 2023>Chapter 11>Section 11.8: Choosing Appropriate Measures>11.8: Practice (7 - 20)> Question #11

31. **IDENTIFYING OUTCOMES** You roll a number cube. Find the sample space.



- {1, 4, 5}
- {2, 4, 6}
- {1, 3, 5}
- {1, 2, 3, 4, 5, 6}

Grade 6 Accel: FL 2023>Chapter 12>Section 12.1: Probability>12.1: In-Class Practice (5 - 6)> Question #5

32. Determine which numbers you are more likely to spin and which numbers you are less likely to spin.



Which numbers are you more likely to spin?

- 1
- 2
- 3
- 4
- 5
- 6
- equal chance for all numbers

Which numbers are you least likely to spin?

- 1
- 2
- 3
- 4
- 5
- 6
- equal chance for all numbers

Explain your reasoning.

B / U T^2 T_2 0 / 10000 Word Limit

Grade 6 Accel: FL 2023>Chapter 12>Section 12.1: Probability>12.1: Practice (12 - 41)> Question #12