

NORTH DAKOTA MATHEMATICS TEST

REPLACEMENT ITEM GRADE 8

MUSICAL TASK *Replacement Item for Dice Task*

In this task, you should be able to:

- Identify basic trends in tables and graphs and use these to make predictions.
- Understand and apply the basic notions of probability.
- Collect, read, and display data using appropriate techniques and technology.
- Determine probabilities through experiments or simulations.
- Evaluate arguments based on statistical claims.
- Display and use measure of central tendency.

You will need to use the following materials:

- Spinner
- Paper Clip
- Straight Edge
- Calculator
- Pencil

All inquiries should be sent to:
Mr. Greg Gallagher, Education Improvement Team Leader
North Dakota Department of Public Instruction
600 East Boulevard Avenue - 9th Floor
Bismarck North Dakota 58505-0440
Phone (701) 328-1838
FAX (701) 328-4720
E-mail ggallagh@mail.dpi.state.nd.us

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Musical Task Task

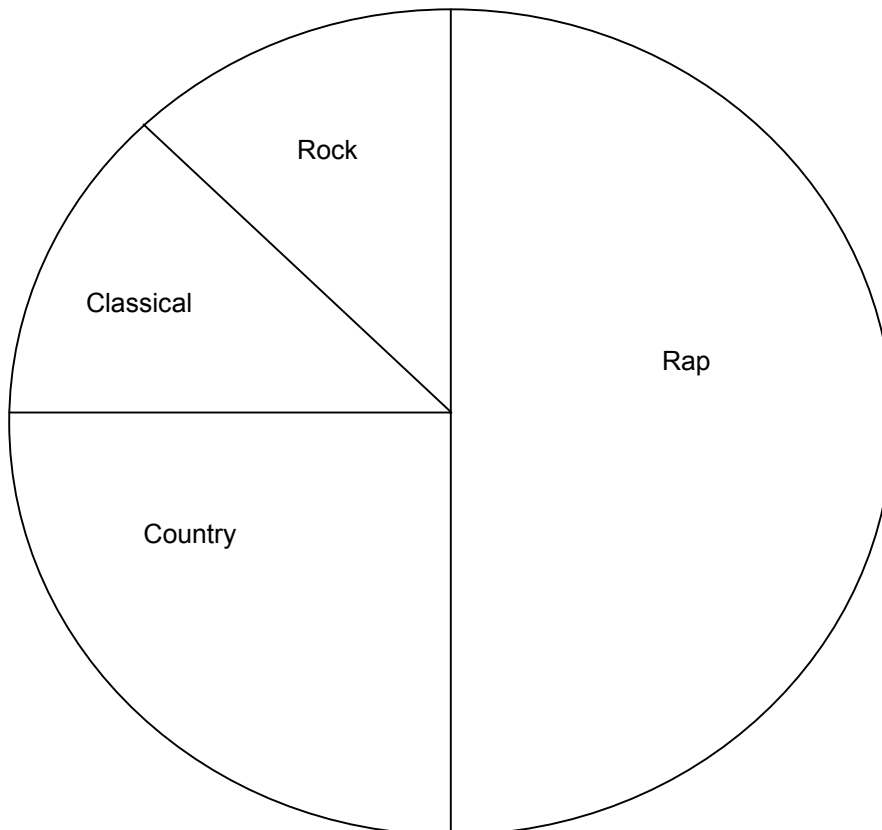
Question 1

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	
Rock	
Rap	
Country	

Circle Graph/Spinner



You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

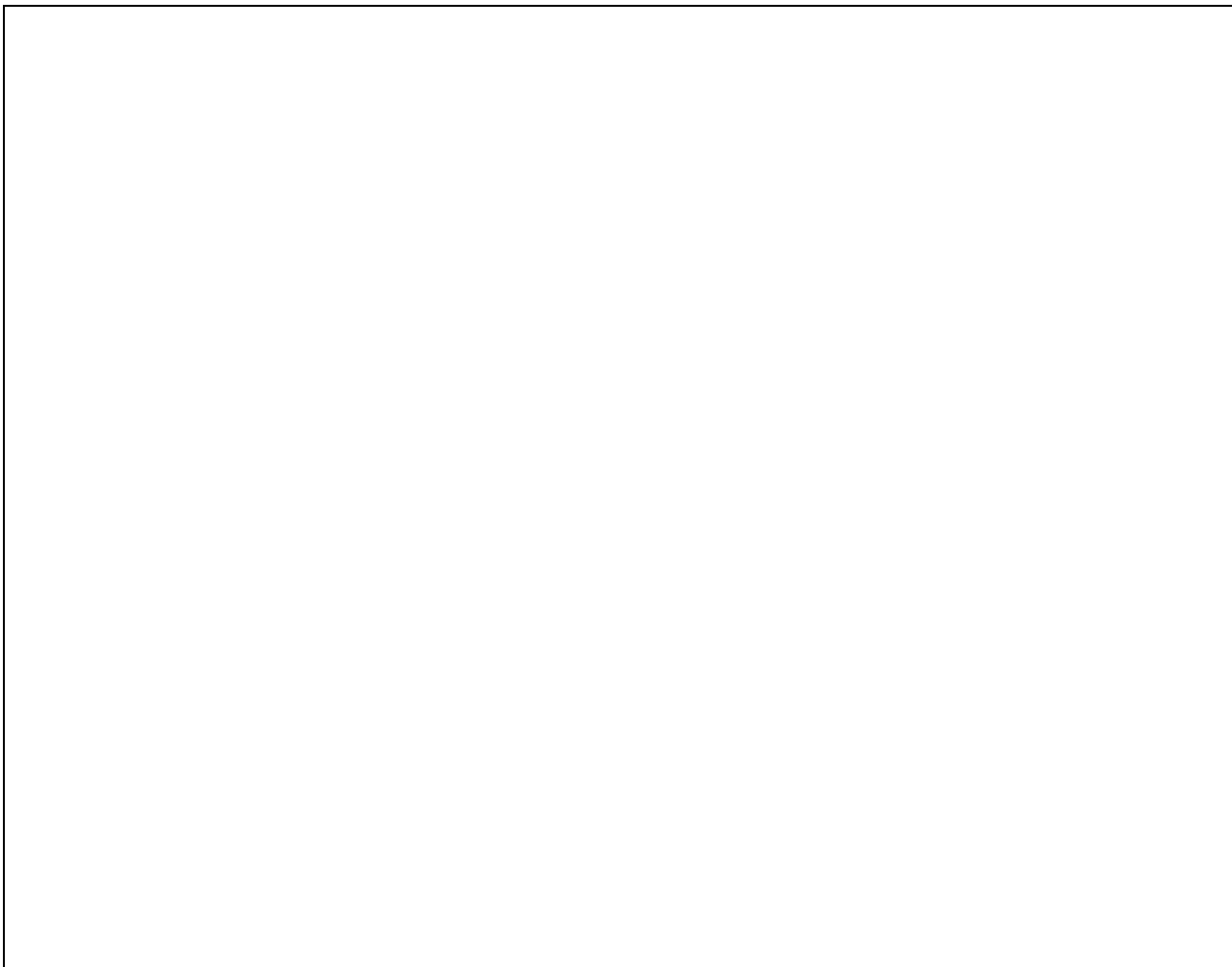
2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

Number of trials	Classical	Rock	Rap	Country
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
Total				

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)

2c) Construct a graph of the results.
Label appropriately.



Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Explain your answer.

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical		
Rock		
Rap		
Country		

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Question 6

(8.3.2)

Which measure (mean, median, or mode) best describes the frequency of occurrence of the experiment? **Explain** why you chose that measure.

Question 7

(8.3.2)

There are 4 musical groups performing at the State Fair.

Groups	V.I.P	Reserved	General Admission
Country Calculators	\$19.00	\$16.50	\$8.00
Rockin' Rubrics	\$19.00	\$14.50	\$8.00
Rappin' Rulers	\$17.00	\$12.50	\$8.00
Classical Compasses	\$15.00	\$10.50	\$8.00

Find the Mean, Median, Mode and Range of the ticket prices showing all work.

Mean =	Median =	Mode =	Range =

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ANSWER KEY

Musical Task**Answer Key****QUESTION 1:**

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability			
	Fraction	Decimal	Percent	Ratio
Classical	1/8	0.125	12.5%	1:8, 1 out of 8, 1 to 8
Rock	1/8	0.125	12.5%	1:8, 1 out of 8, 1 to 8
Rap	1/2	0.50	50%	1:2, 1 out of 2, 1 to 2
Country	1/4	0.25	25%	1:4, 1 out of 4, 1 to 4

Note: Answer may be expressed in decimal, fraction, percent, or ratio form.

Note: A dash/hyphen (-) is unacceptable for ratio form.

QUESTION 2:

- a) Students should record the results of each spin.
- b) Accept answers in whole numbers, fractions or decimals.
- c) The six components of a bar graph are:
 - Properly labeled horizontal axis – sub categories (e.g. rock, classical...)
 - Properly labeled horizontal axis (e.g. musical categories)
 - Properly labeled vertical axis (e.g. number of times spun)
 - Scaled consistently and labeled properly on vertical axis
 - Proper Title
 - Data in graph corresponds to data in the table

QUESTION 3:

Classical and Rock.

Explanation needs to include reference to:

- size of sections on the spinner
and/or
- theoretical probability
and/or
- number of times classical and rock occurred.

QUESTION 4:

Experimental probability may be expressed in fraction, decimal, percent or ratio form. Fractions do not need to be in simplified form.

QUESTION 5:

Responses should include all four musical categories with their theoretical and experimental probabilities from Questions 1 and 4. Explanation must compare similarities and differences.

QUESTION 6:

Mode – Student must give a thorough explanation of why mode is the best measure.

QUESTION 7:

Mean = \$13.00

Median = \$13.50

Mode = \$8.00

Range = \$11.00

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RUBRICS

**Musical Task
Rubrics**

**Benchmark 8.3.6: Understand and apply the basic notion of probability.
Question 1**

4	All four probabilities correct.
3	Three probabilities correct.
2	Two probabilities correct.
1	One probability correct
0	No probabilities correct OR No attempt made.

Benchmark 8.3.1: Collect, read, and display data using appropriate techniques and technology.

Questions 2a, 2b, 2c

4	<p>All data collected and recorded correctly in Questions 2a and 2b. Bar graph contains all six correct components in Question 2c.</p> <p>OR</p> <p>Circle graph must:</p> <ul style="list-style-type: none"> ▪ Correspond to data from table in 2b ▪ include Title ▪ include Sections that are labeled correctly <p>Note: A broken line graph is not an acceptable graph</p>
3	<p>One error occurred while collecting and recording data in Questions 2a and 2b. Graph contains at least 4 correct components in Question 2c.</p> <p>OR</p> <p>Circle graph must:</p> <ul style="list-style-type: none"> ▪ Correspond to data from table in 2b ▪ include Title or Sections that are labeled correctly <p>Note: A broken line graph is not an acceptable graph</p>
2	<p>More than one error occurred while collecting and recording data in Question 2a and 2b. Graph contains at least two correct components.</p> <p>OR</p> <p>Circle graph must:</p> <ul style="list-style-type: none"> ▪ Correspond to data from table in 2b.
1	<p>Incomplete Table.</p> <p>OR</p> <p>Graph contains one correct component.</p> <p>OR</p> <p>Circle graph was attempted. Example – Increments may be incorrect, labels in appropriate.</p>
0	<p>No attempt made.</p> <p>OR</p> <p>Unscoreable.</p>

MUSICAL TASK – RUBRICS

Benchmark 8.3.4: Identifies basic trends in tables and graphs and uses these trends to make predictions.

Question 3

4	Correctly predicts which musical categories would occur the least often in Question 3 with correct explanation.
3	Correctly predicts both musical categories with no or incorrect explanation.
2	Predicts only one musical category with no or incorrect explanation.
1	Attempt was made.
0	No attempt made.

Benchmark 8.3.5: Determine probabilities through experiments or simulations.

Question 4

4	Exemplary explanation includes frequency of musical categories compared to the number of spins; correct probabilities.
3	Correct probabilities and explanation attempted.
2	No explanation; minor errors in probability.
1	Attempt made; shows little understanding.
0	No attempt made.

Benchmark 8.3.3: Evaluates arguments that are based on statistical claim.

Question 5

4	Responses include all four musical categories with their theoretical and experimental probabilities from Questions 1 and 4. Explanation must compare similarities and differences.
3	Responses compare the theoretical and experimental probabilities of at least 3 musical categories in Question 1 to the results of Question 4. Specific numerical references may or may not be included.
2	Responses show some understanding of the theoretical and experimental probabilities.
1	An attempt was made.
0	No attempt OR Unscoreable.

**Benchmark 8.3.2: Displays and uses measures of central tendency and measures of variability.
(Questions 6 and 7)**

4	<ul style="list-style-type: none">• Identifies best measure (mode) in Question 6.• Gives a thorough explanation of why mode is answer in Question 6.• Correctly finds mean, median, mode and range in Question 7.
3	<ul style="list-style-type: none">• Identifies best measure (mode).• Gives a thorough explanation of why mode is answer in Question 6.• Correctly finds 3 of 4 measurements (Mean, median, mode, and range) in Question 7.
2	Gives an inaccurate measure or incomplete explanation in Question 6. Correctly finds 2 of the 4 measurements in Question 7.
1	Attempt is made.
0	No attempt made OR Unscoreable.

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STUDENT EXEMPLARS

Musical Task Student Exemplars

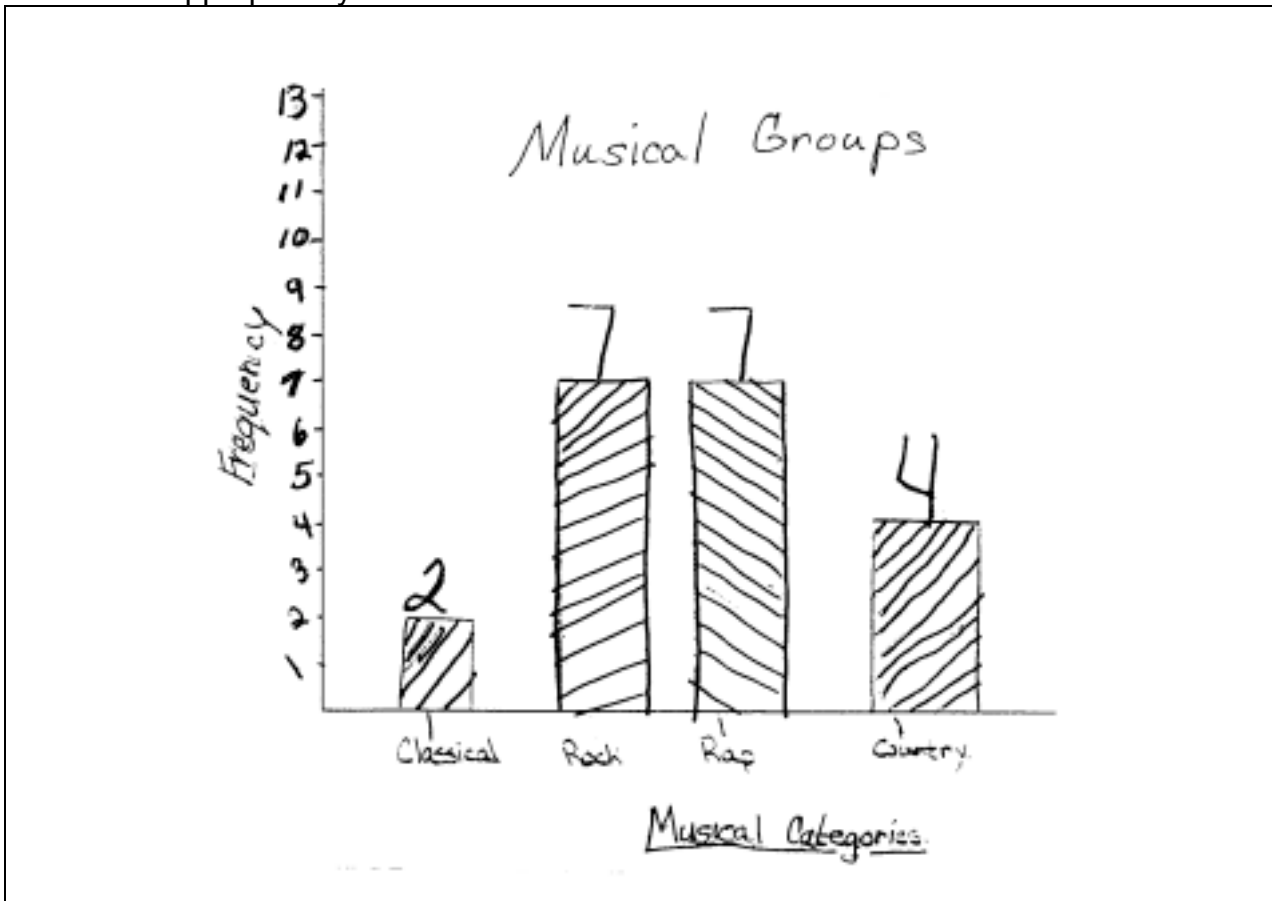
Benchmark 8.3.1: Collects, reads, and displays data using appropriate techniques and technology.

Level 4: All data collected and recorded correctly in Questions 2a and 2b; bar graph contains all six correct components in Question 2c **OR** Circle graph must: 1) Correspond to data from table in 2b, 2) Title; 3) Sections must be labeled correctly (a broken line graph is not an acceptable graph).

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Classical	2
Rock	7
Rap	7
Country	4

2c) Construct a graph of the results.
Label appropriately.



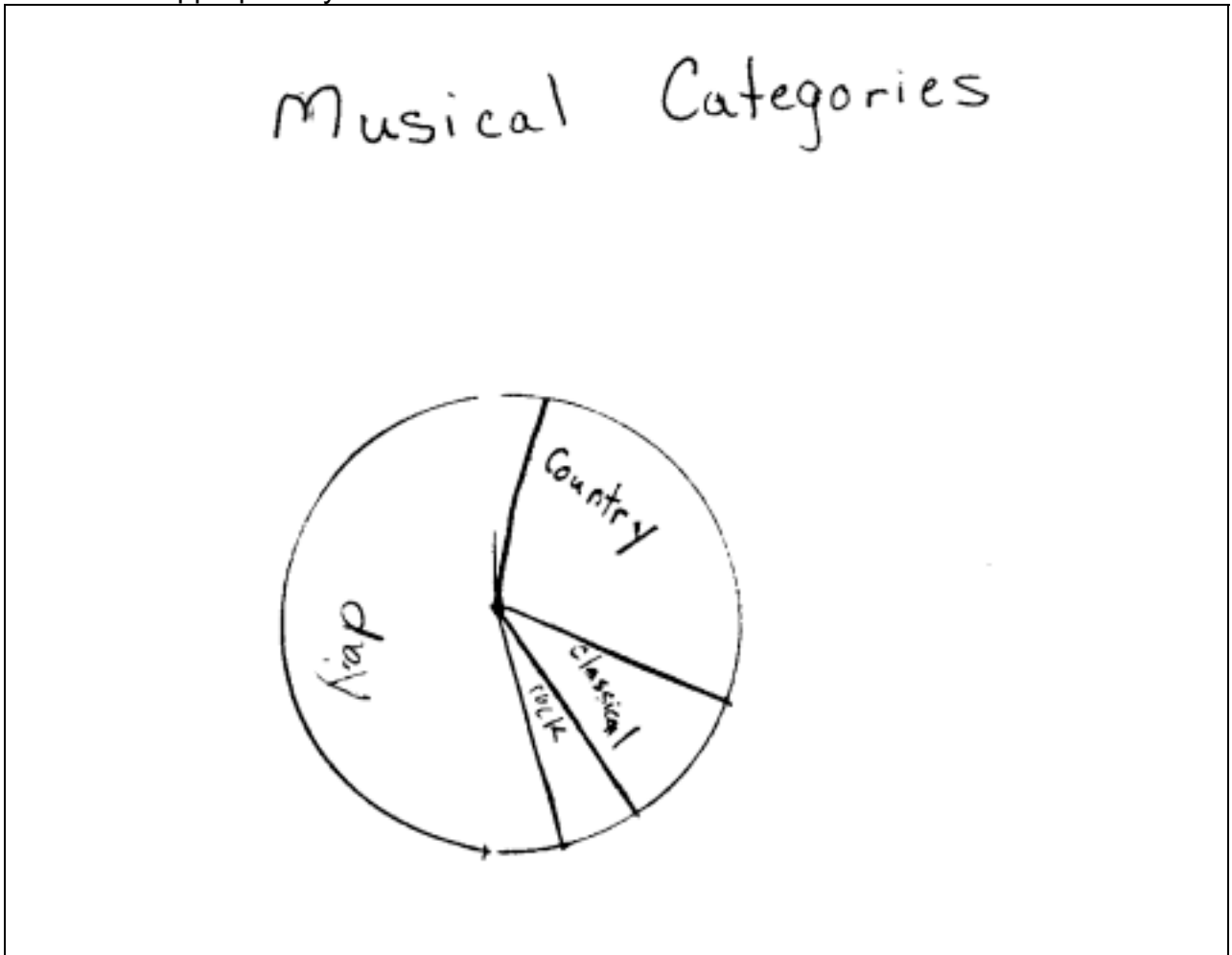
Benchmark 8.3.1: Collects, reads, and displays data using appropriate techniques and technology.

Level 4: All data collected and recorded correctly in Questions 2a and 2b; bar graph contains all six correct components in Question 2c **OR** Circle graph must: 1) Correspond to data from table in 2b, 2) Title; 3) Sections must be labeled correctly (a broken line graph is not an acceptable graph).

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Rap	$11/20 = 55/100$
Rock	$1/20 = 5/100$
Classical	$1/10 = 10/100$
Country	$1/4 = 25/100$

2c) Construct a graph of the results.
Label appropriately.



MUSICAL TASK – STUDENT EXEMPLARS

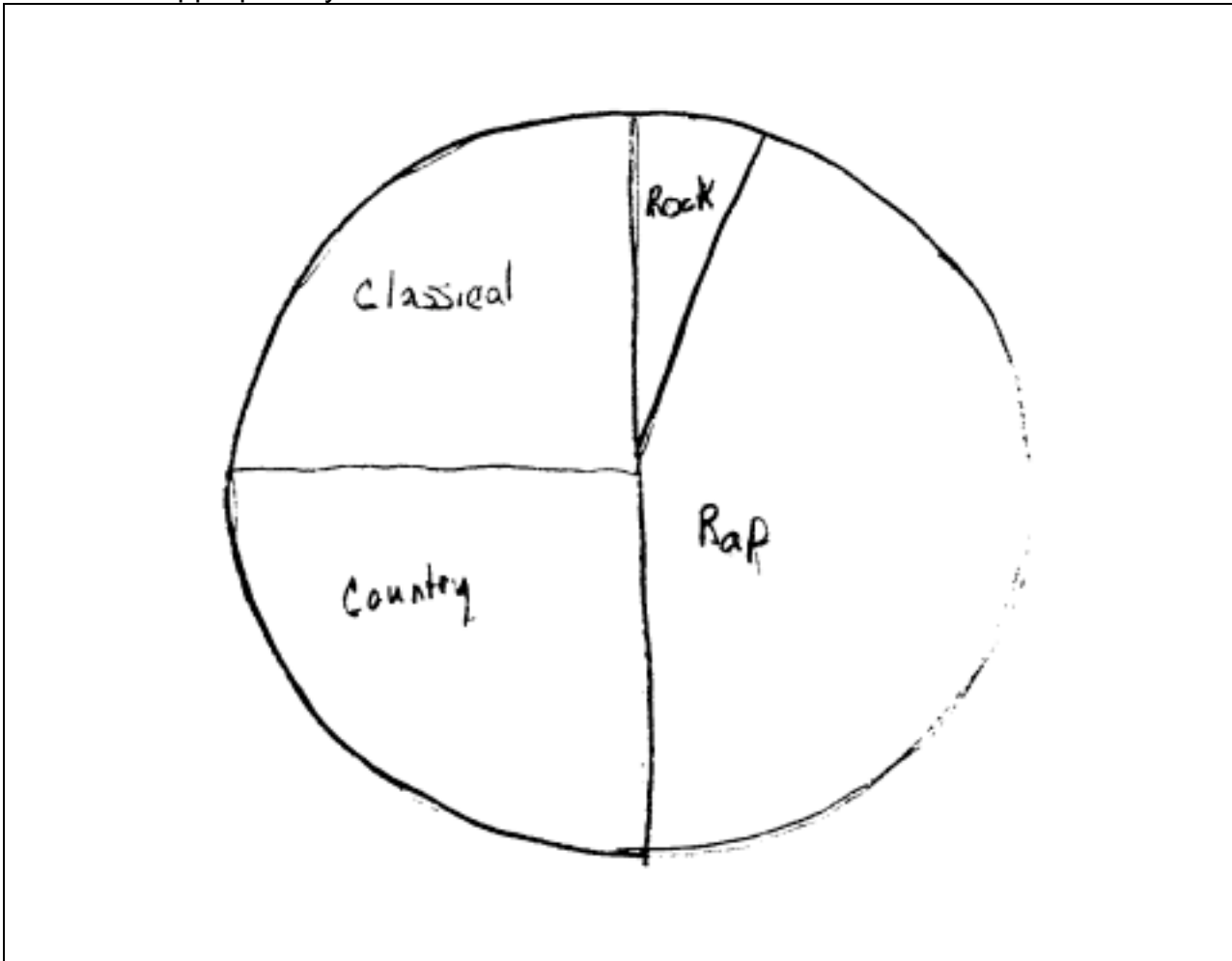
Benchmark 8.3.1: Collects, reads, and displays data using appropriate techniques and technology.

Level 3 (high): Missing Title.

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)	
Rock	1/20	1
Rap	9/20	9
Classical	5/20	5
Country	5/20	5

2c) Construct a graph of the results.
Label appropriately.



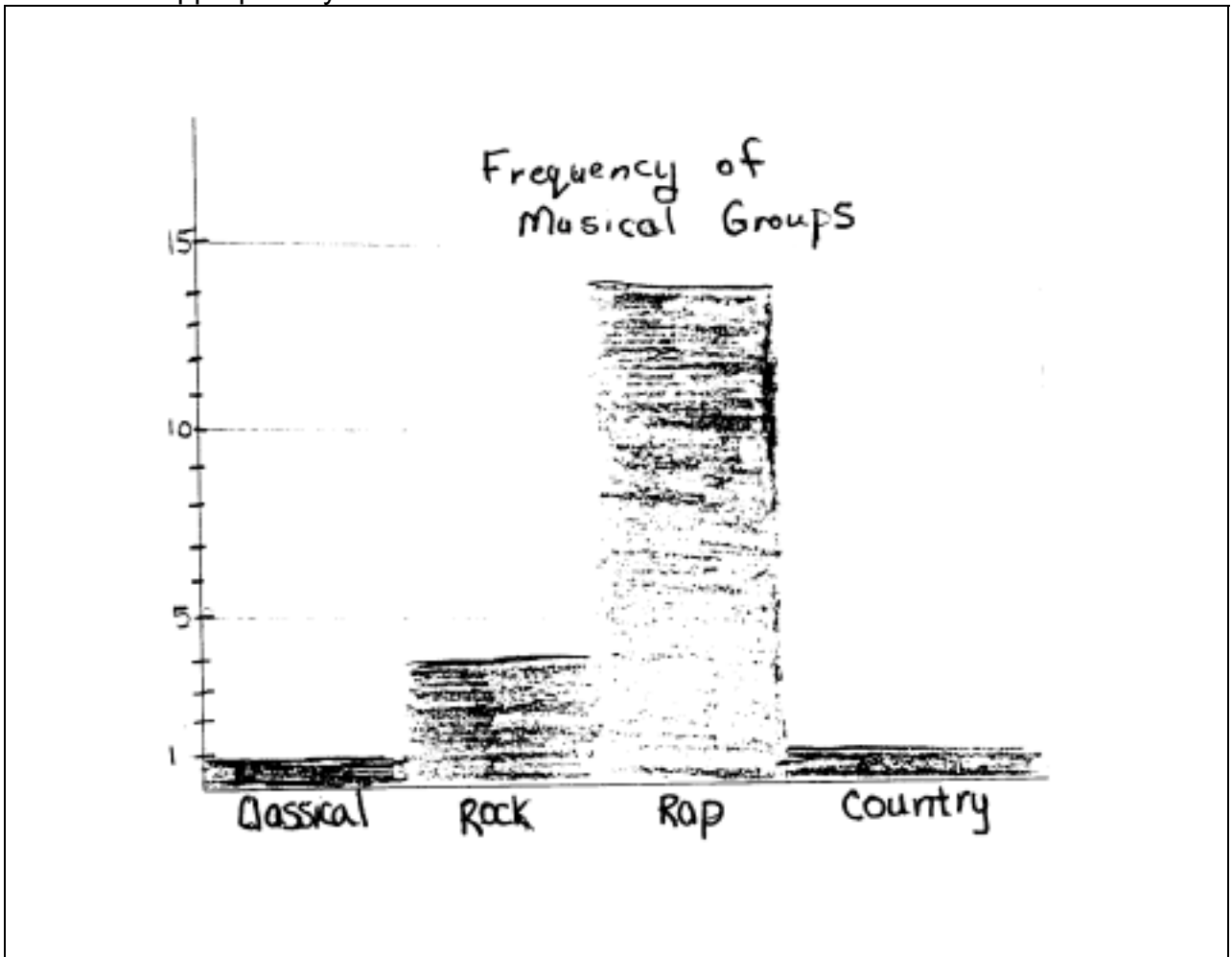
Benchmark 8.3.1: Collects, reads, and displays data using appropriate techniques and technology.

Level 3 (low): Has four components; missing general labels for horizontal and vertical axis.

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Classical	1
Rock	4
Rap	14
Country	1

2c) Construct a graph of the results.
Label appropriately.



MUSICAL TASK – STUDENT EXEMPLARS

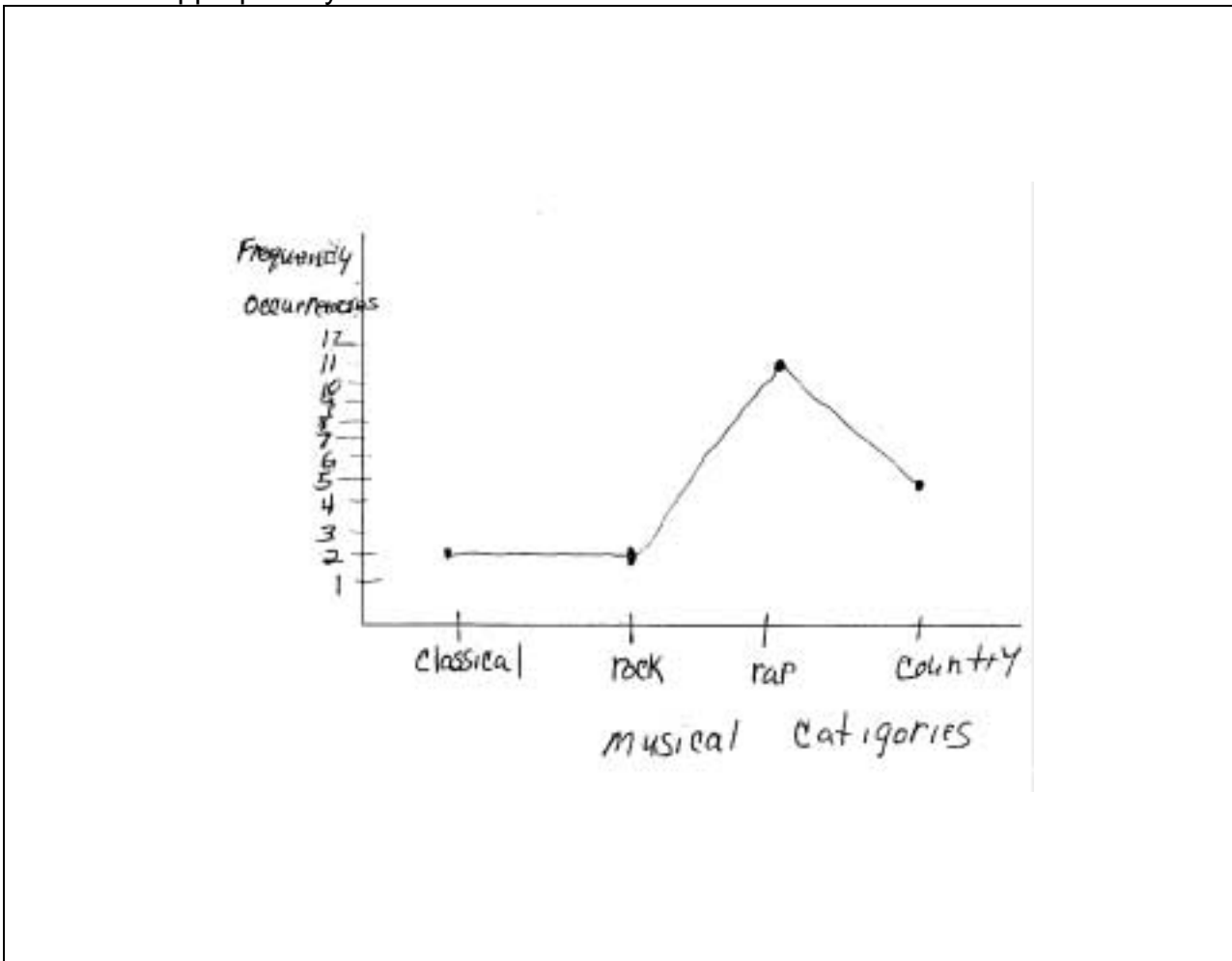
Benchmark 8.3.1: Collects, reads, and displays data using appropriate techniques and technology.

Level 2 (high): Contains two components; inappropriate graph (line graph).

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Classical	2
Rock	2
Rap	11
Country	5

2c) Construct a graph of the results.
Label appropriately.



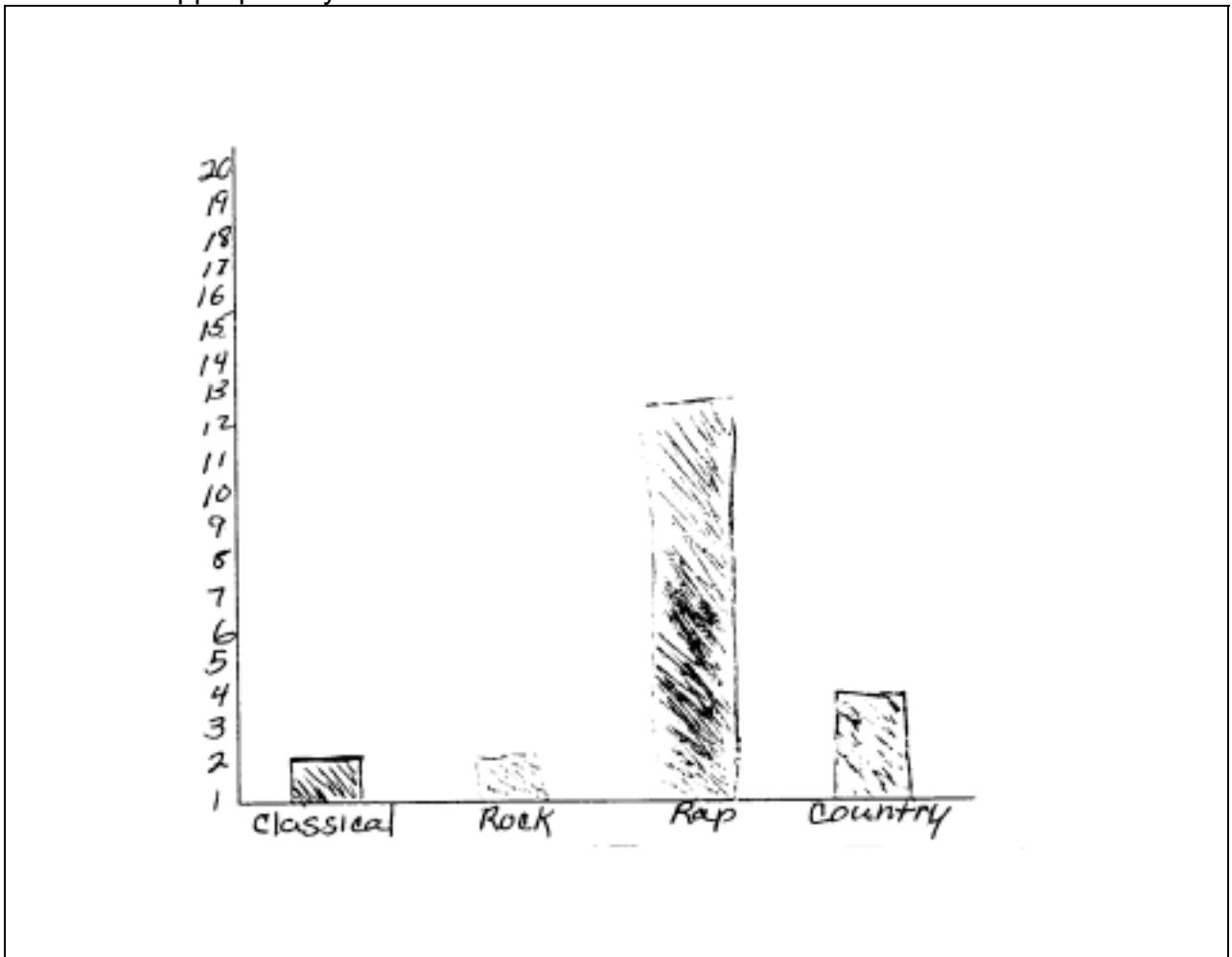
Benchmark 8.3.1: Collects, reads, and displays data using appropriate techniques and technology.

Level 2 (low): Has two components; missing title and labels for horizontal axis; vertical scale does not begin with zero.

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Classical	2
Rock	2
Rap	13
Country	4

2c) Construct a graph of the results.
Label appropriately.



MUSICAL TASK – STUDENT EXEMPLARS

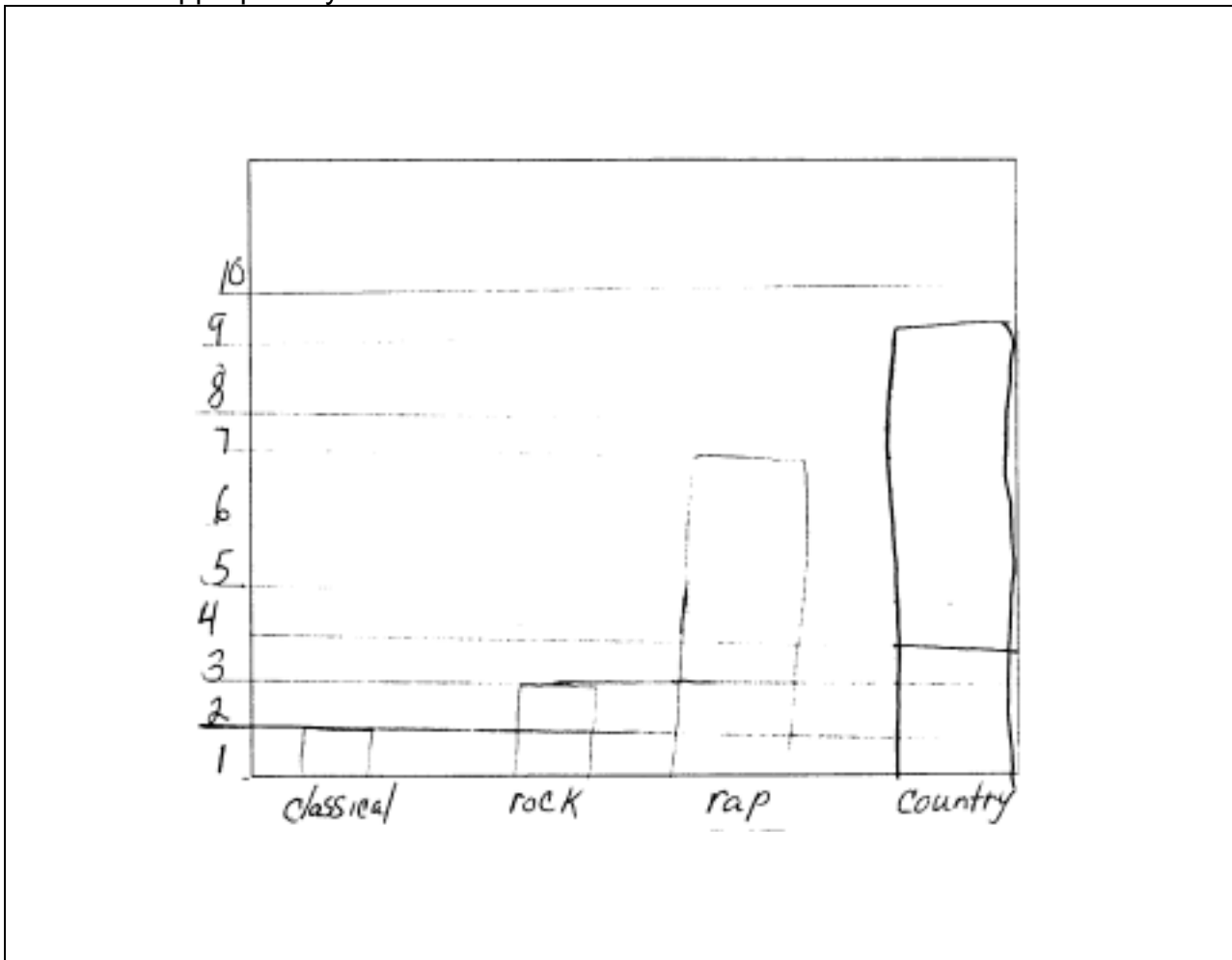
Benchmark 8.3.1: Collects, reads, and displays data using appropriate techniques and technology.

Level 1: Graph reflects data, increments of scale does not start with zero.

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Classical	2
Rock	3
Rap	7
Country	8

2c) Construct a graph of the results.
Label appropriately.



Benchmark 8.3.5: Determine probabilities through experiments or simulations.

Level 4: Reduced form in explanation; should have referenced 20 spins.

Question 4

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	$2/20$	1/10 - one out of ten spins I got classical
Rock	$2/20$	1/10 - one out of ten spins I got rock
Rap	$10/20$	1/2 - one out of two spins I got rap
Country	$6/20$	3/10 - three out of ten spins I got country

MUSICAL TASK – STUDENT EXEMPLARS

Benchmark 8.3.5: Determine probabilities through experiments or simulations.

Level 3 (high): Probabilities correct; explanation does not reference to number of spins it is out of.

Question 4

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	$4/20 = 20\%$	It landed on classical 4 times
Rock	$1/20 = 5\%$	It landed on Rock 1 time.
Rap	$11/20 = 55\%$	It landed on Rap 11 times.
Country	$4/20 = 20\%$	It landed on Country 4 times.

Benchmark 8.3.5: Determine probabilities through experiments or simulations.

Level 3 (low): Explanation attempted but shows little understanding.

Question 4

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	1/20	cause smallest area
Rock	3/20	smallest area
Rap	10/20	biggest area
Country	6/20	middle amount of area

MUSICAL TASK – STUDENT EXEMPLARS

Benchmark 8.3.5: Determine probabilities through experiments or simulations.

Level 2 (high): Probabilities are correct; no explanation.

Question 4

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	20%	I
Rock	25%	DON'T
Rap	30%	UNDERSTAND
Country	25%	

Benchmark 8.3.5: Determine probabilities through experiments or simulations.

Level 2 (low): No explanation; minor errors in probability; probability does not correspond.

Question 4

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	2/10	
Rock	4/20	
Rap	3/10	
Country	9/20	

MUSICAL TASK – STUDENT EXEMPLARS

Benchmark 8.3.5: Determine probabilities through experiments or simulations.

Level 1: Probabilities expressed in proper form; explanation incorrect; probability shown under explanation with simplification; error for classical.

Question 4

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	4	1/10
Rock	3	3/20
Rap	9	9/20
Country	4	1/5

Benchmark 8.3.3: Evaluates arguments that are based on statistical claims.

Level 4: Does not use mathematical terms of theoretical and experimental probability; decimals not labeled as to which is T.P. and which is E.P.

Question 5

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

The Classical category has a relation with the Rock category by being the smallest category. They both were very close to what was predicted of them on page 1 (.1, .125).

The Rap category was rather close to what was expected (.65, .5).

The Country category fell fairly short of what was expected of it (.15, .25).

MUSICAL TASK – STUDENT EXEMPLARS

Benchmark 8.3.3: Evaluates arguments that are based on statistical claims.

Level 3 (high): All four musical groups mentioned; does not use numerical references.

Question 5

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Classical music is less because it is the smallest part of the graph.

Rock and Country were close, but theory and what really happens in live is a different story. Rap as in theory was the most selected since it was half/most of the spinner/graph.

Benchmark 8.3.3: Evaluates arguments that are based on statistical claims.

Level 3 (low): Compares three of four musical categories; does not use numerical values.

Question 5

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Rap was picked the most like it should be, but like Rock and Country were almost the same and Country has a bigger portion on the spinner than Rock does.

MUSICAL TASK – STUDENT EXEMPLARS

Benchmark 8.3.3: Evaluates arguments that are based on statistical claims.

Level 2 (high): Only compared two musical categories; does not use correct terminology (explanation probability).

Question 5

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Rap should have occurred most and it did.

Rock should have been least and was most.

Theoretical probabilities are different from explanatory probabilities.

Benchmark 8.3.3: Evaluates arguments that are based on statistical claims.

Level 2 (low): Only includes two musical categories.

Question 5

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Classical had a significantly lower frequency than Rap, which was $\frac{3}{8}$ more on the wheel.

The number of the largest categories were the largest.

MUSICAL TASK – STUDENT EXEMPLARS

Benchmark 8.3.3: Evaluates arguments that are based on statistical claims.

Level 1: No comparison.

Question 5

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Rap was the biggest so I spun it the most times.

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**REPLACEMENT ITEM
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SCORING SHEET

MUSICAL TASK – SCORING SHEET

Evaluate the 10 training papers associated with the **Musical Task Problem**. Record your ratings on this sheet. Then transfer your ratings from this sheet to the Combined Scoring Page found after the last student paper.

QUESTION 1

- Benchmark 8.3.6: Understand and apply the basic notion of probability.

QUESTION 2

- Benchmark 8.3.1: Collect, read, and display data using appropriate techniques and technology.

QUESTION 3

- Benchmark 8.3.4: Identifies basic trends in tables and graphs and uses these trends to make predictions.

QUESTION 4

- Benchmark 8.3.5: Determine probabilities through experiments or simulations.

QUESTION 5

- Benchmark 8.3.3: Evaluates arguments that are based on statistical claim.

QUESTION 6 and 7

- Benchmark 8.3.2: Displays and uses measures of central tendency and measures of variability.

Training Paper	Your Rating Question 1 (8.3.6)	Your Rating Question 2 (8.3.1)	Your Rating Question 3 (8.3.4)	Your Rating Question 4 (8.3.5)	Your Rating Question 5 (8.3.3)	Your Rating Quest. 6-7 (8.3.2)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

**NORTH DAKOTA
MATHEMATICS TEST**

**REPLACEMENT ITEM
GRADE 8**

TRAINING PAPERS

**Musical Task
Training Papers**

Test 1: Page 1 of 5

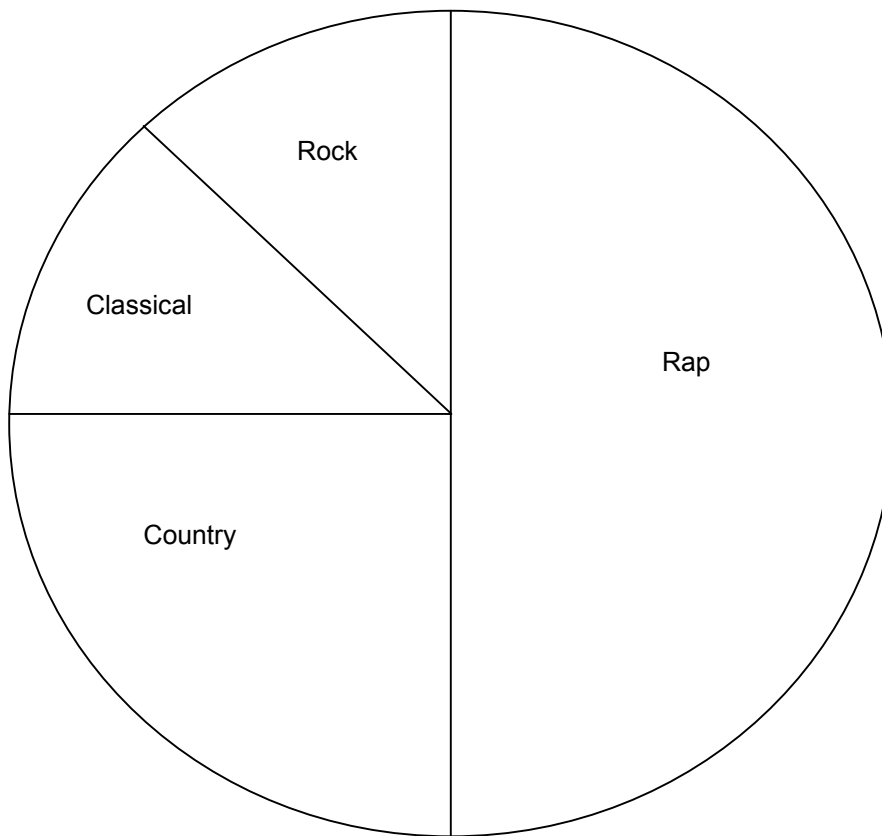
Question 1

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	$\frac{1}{8}$
Rock	$\frac{1}{8}$
Rap	$\frac{1}{2}$
Country	$\frac{1}{4}$

Circle Graph/Spinner



You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

Number of trials	Classical	Rock	Rap	Country
1	X			
2			X	
3			X	
4				X
5		X		
6			X	
7		X		
8			X	
9			X	
10	X			
11				X
12		X		
13	X			
14			X	
15				X
16			X	
17				X
18	X			
19			X	
20			X	
Total	4	3	9	4

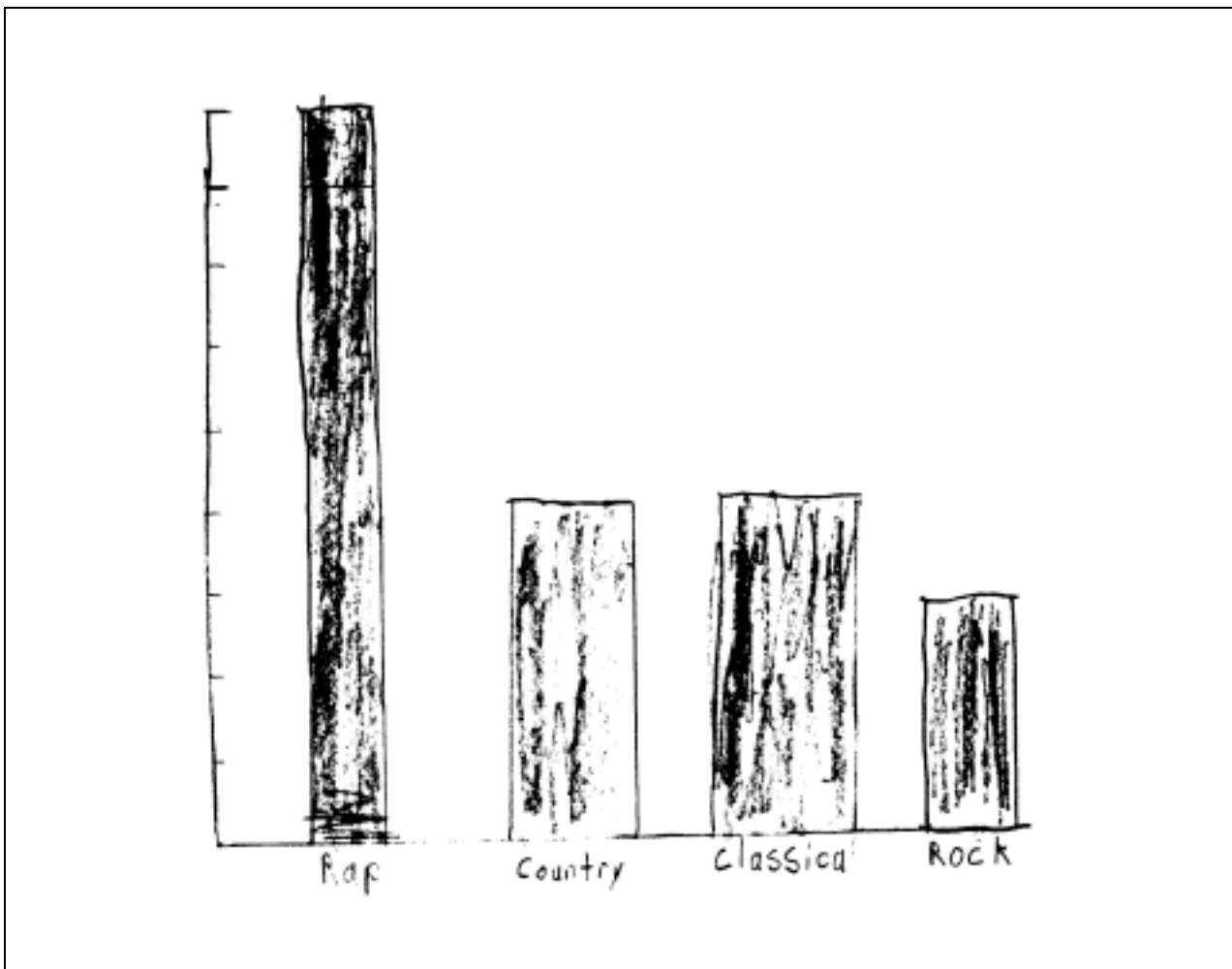
MUSICAL TASK – TRAINING PAPERS

Test 1: Page 3 of 5

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Rap	9
Country	4
Classical	4
Rock	3

2c) Construct a graph of the results.
Label appropriately.



Test 1: Page 4 of 5

Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Explain your answer.

Rock. It was the fewest now and would be the same after 100.

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	4	1/10
Rock	3	3/20
Rap	9	9/20
Country	4	1/5

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

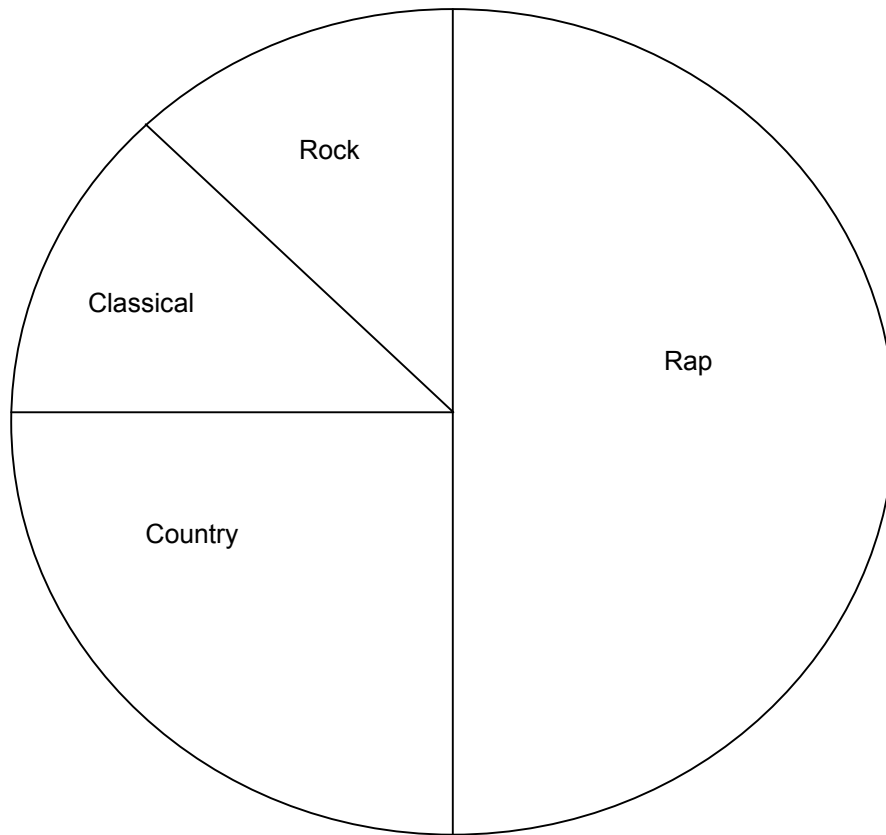
Rap was close to $\frac{1}{2}$ were it was to be. Country was also close to the probability; rock to but classical was a ways off.

Test 2: Page 1 of 5**Question 1**

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	$\frac{1}{8}$
Rock	$\frac{1}{8}$
Rap	$\frac{1}{2}$
Country	$\frac{1}{4}$

Circle Graph/Spinner

MUSICAL TASK – TRAINING PAPERS

Test 2: Page 2 of 5

You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

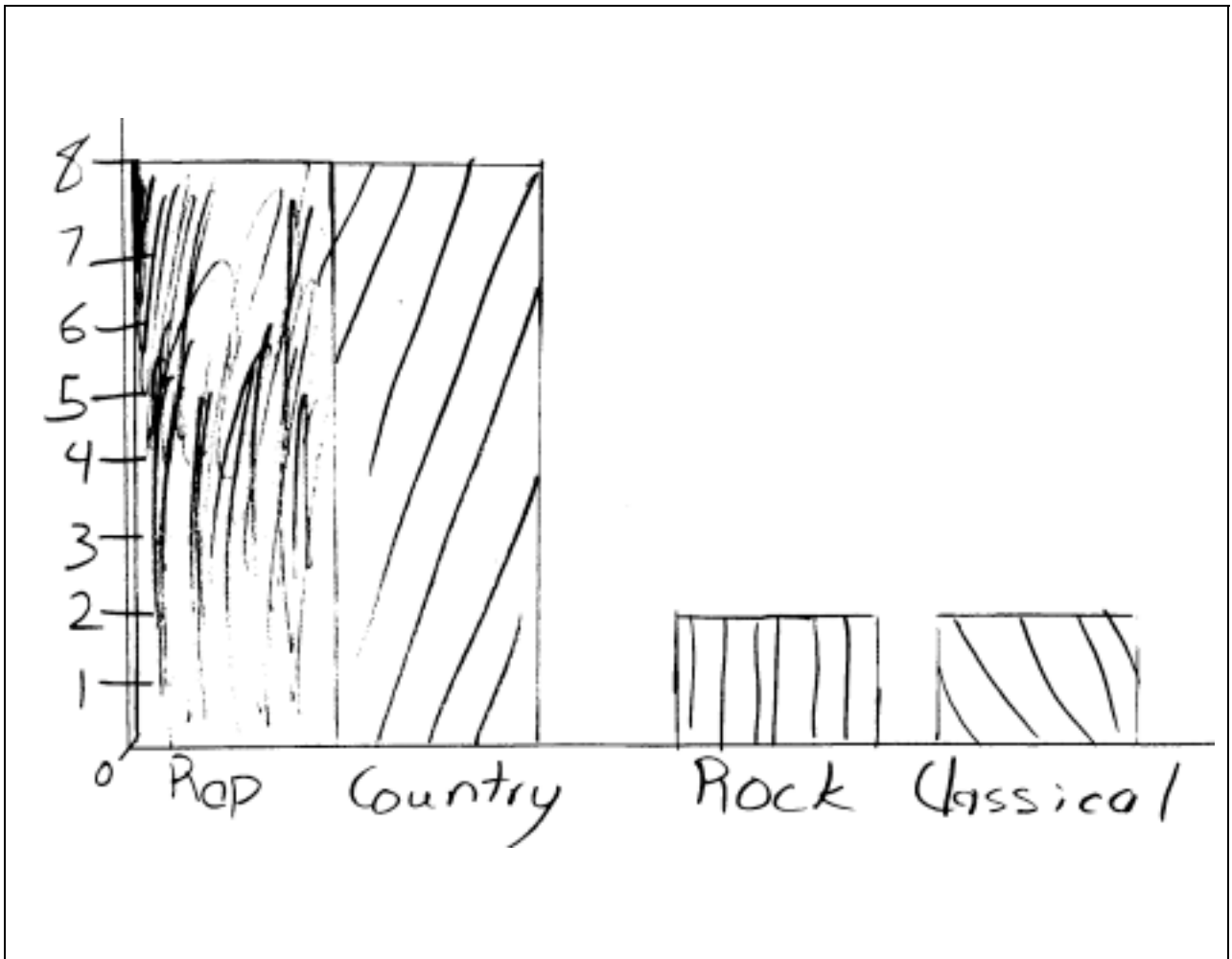
2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

Number of trials	Classical	Rock	Rap	Country
1			X	
2	X			
3				X
4		X		
5			X	
6			X	
7			X	
8			X	
9				X
10			X	
11			X	
12			X	
13				X
14		X		
15				X
16				X
17				X
18				X
19				X
20	X			
Total	1/10	1/10	4/10	4/10

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Rap	8
Country	8
Rock	2
Classical	2

2c) Construct a graph of the results.
Label appropriately.



Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Classical, Rock

Explain your answer.

That is what the 20 time experiment showed.

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	10%	1/10 or 2/20 times
Rock	10%	1/10 or 2/20 times
Rap	40%	4/10 or 8/20 times
Country	40%	4/10 or 8/20 times

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Rock was supposed to have 12.5%, and only had 10%. Classical was supposed to have 12.5% but only had 10%. Rap was supposed to have 50%, but only got 40%, Country was supposed to have only 25%, but it had 40%.

Question 6

(8.3.2)

Which measure (mean, median, or mode) best describes the frequency of occurrence of the experiment? **Explain** why you chose that measure.

Mean, because all were equal to one other.

Question 7

(8.3.2)

There are 4 musical groups performing at the State Fair.

Groups	V.I.P	Reserved	General Admission
Country Calculators	\$19.00	\$16.50	\$8.00
Rockin’ Rubrics	\$19.00	\$14.50	\$8.00
Rappin’ Rulers	\$17.00	\$12.50	\$8.00
Classical Compasses	\$15.00	\$10.50	\$8.00

Find the Mean, Median, Mode and Range of the ticket prices showing all work.

Mean =	Median =	Mode =	Range =
$\$13.38$ $19.2+17+15+$ $10.5+12.5+$ $14.5+16.5+$ $8 \cdot 4 = 160.5$ $160.5/12$	$\$14.75$ $19, 19, 17, 16.5$ $15, 14.5, 12.5,$ $10.5, 8, 8, 8, 8$		$11 - 7 = \$4$ $CC = 19 - 8$ $RRu = 19 - 8$ $RRul = 17 - 8$ $CCom = 15 - 8$ $CC - \$11$ $Rru - \$11$ $Rrul - \$9$ $Ccom - \$7$

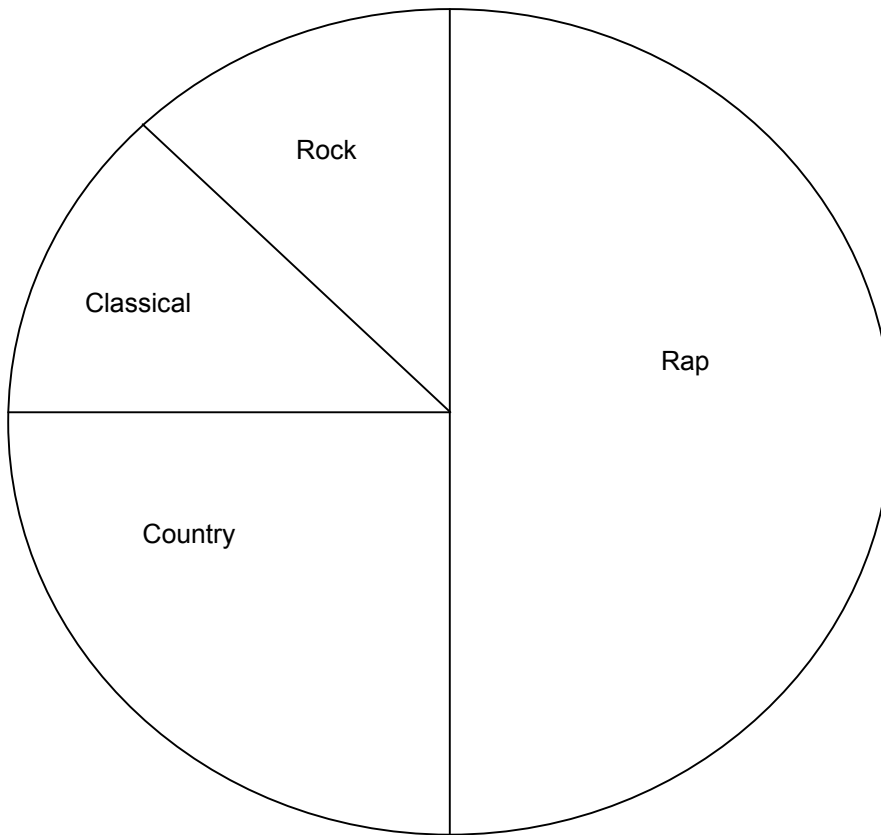
Question 1

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	1/8
Rock	1/8
Rap	1/2
Country	1/4

Circle Graph/Spinner



You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

Number of trials	Classical	Rock	Rap	Country
1			X	
2		X		
3			X	
4			X	
5		X		
6			X	
7				X
8			X	
9		X		
10			X	
11				X
12			X	
13			X	
14			X	
15			X	
16				X
17			X	
18	X			
19			X	
20	X			
Total	2/20 = 1/10	3/20	12/20 = 3/5	3/20

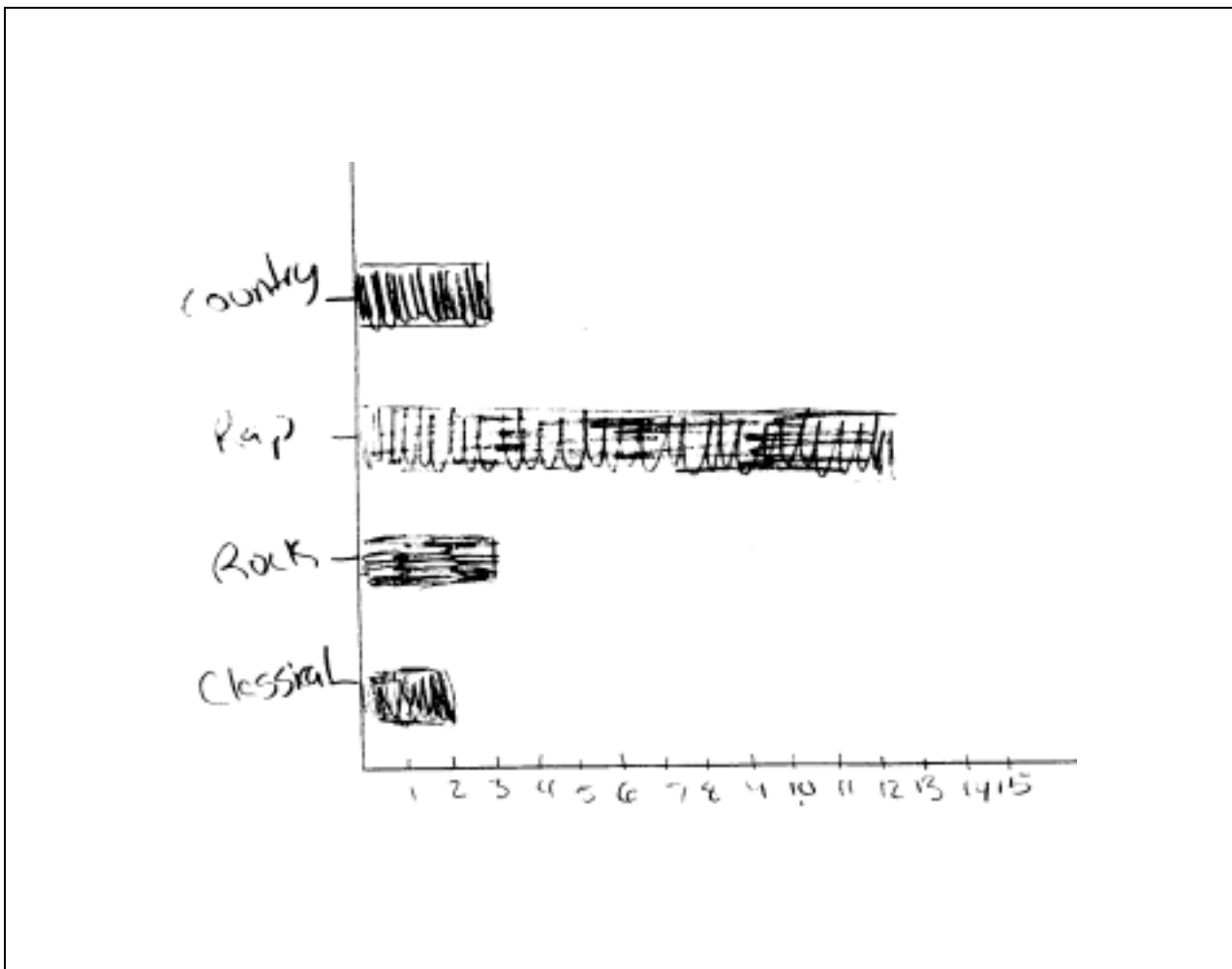
MUSICAL TASK – TRAINING PAPERS

Test 3: Page 3 of 5

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Classical	2
Rock	3
Rap	12
Country	3

2c) Construct a graph of the results.
Label appropriately.



Test 3: Page 4 of 5

Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Classical, Rock

Explain your answer.

Because those are the two smallest areas for it to land in. It is more likely for it to land in a place with more space.

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	1/10	2/10 = 1/10
Rock	3/20	3/20 (3 out of 20)
Rap	3/5	12/20 ÷ 4 = 3/5
Country	3/20	3/20 (3 out of 20)

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Didn't get what I was supposed to get but it was close enough. None were far off.

	Question 1	Question 4
Classical-	1/8	1/10
Rock-	1/8	3/20
Rap-	1/2	3/20
Country-	1/4	3/20

MUSICAL TASK – TRAINING PAPERS

Test 3: Page 5 of 5

Question 6

(8.3.2)

Which measure (mean, median, or mode) best describes the frequency of occurrence of the experiment? **Explain** why you chose that measure.

Mode, because that shows the one it goes to the most.

Question 7

(8.3.2)

There are 4 musical groups performing at the State Fair.

Groups	V.I.P	Reserved	General Admission
Country Calculators	\$19.00	\$16.50	\$8.00
Rockin' Rubrics	\$19.00	\$14.50	\$8.00
Rappin' Rulers	\$17.00	\$12.50	\$8.00
Classical Compasses	\$15.00	\$10.50	\$8.00

Find the Mean, Median, Mode and Range of the ticket prices showing all work.

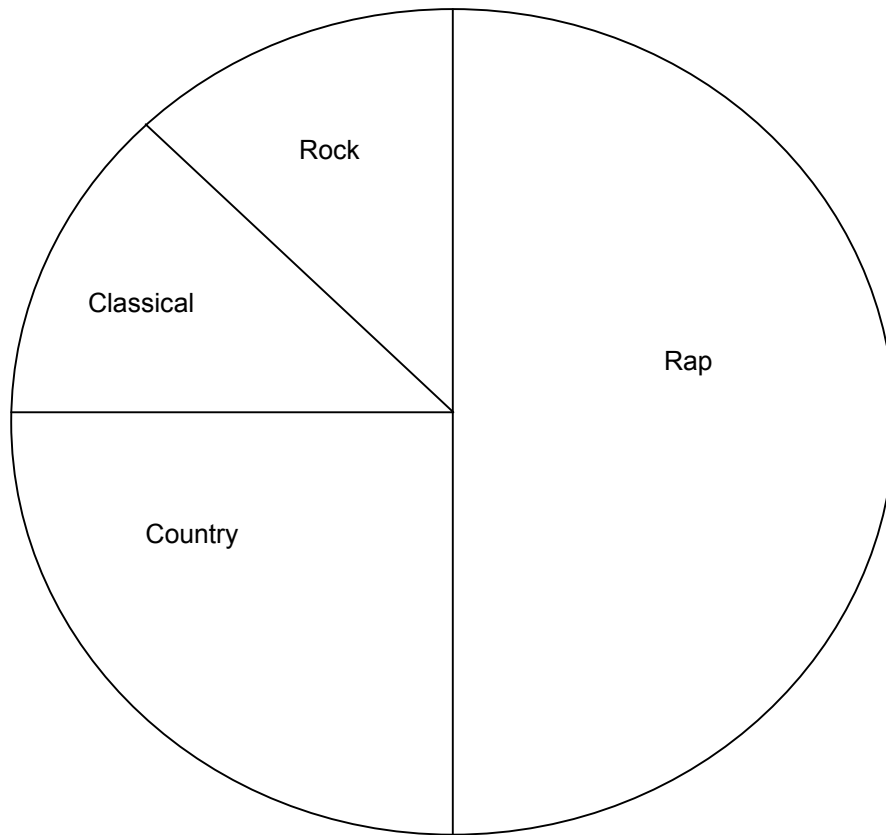
Mean =	Median =	Mode =	Range =
13	13.5	8.00	8 to 19

Test 4: Page 1 of 5**Question 1**

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	$\frac{1}{2}$
Rock	$\frac{1}{8}$
Rap	$\frac{1}{8}$
Country	$\frac{1}{4}$

Circle Graph/Spinner

MUSICAL TASK – TRAINING PAPERS

Test 4: Page 2 of 5

You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

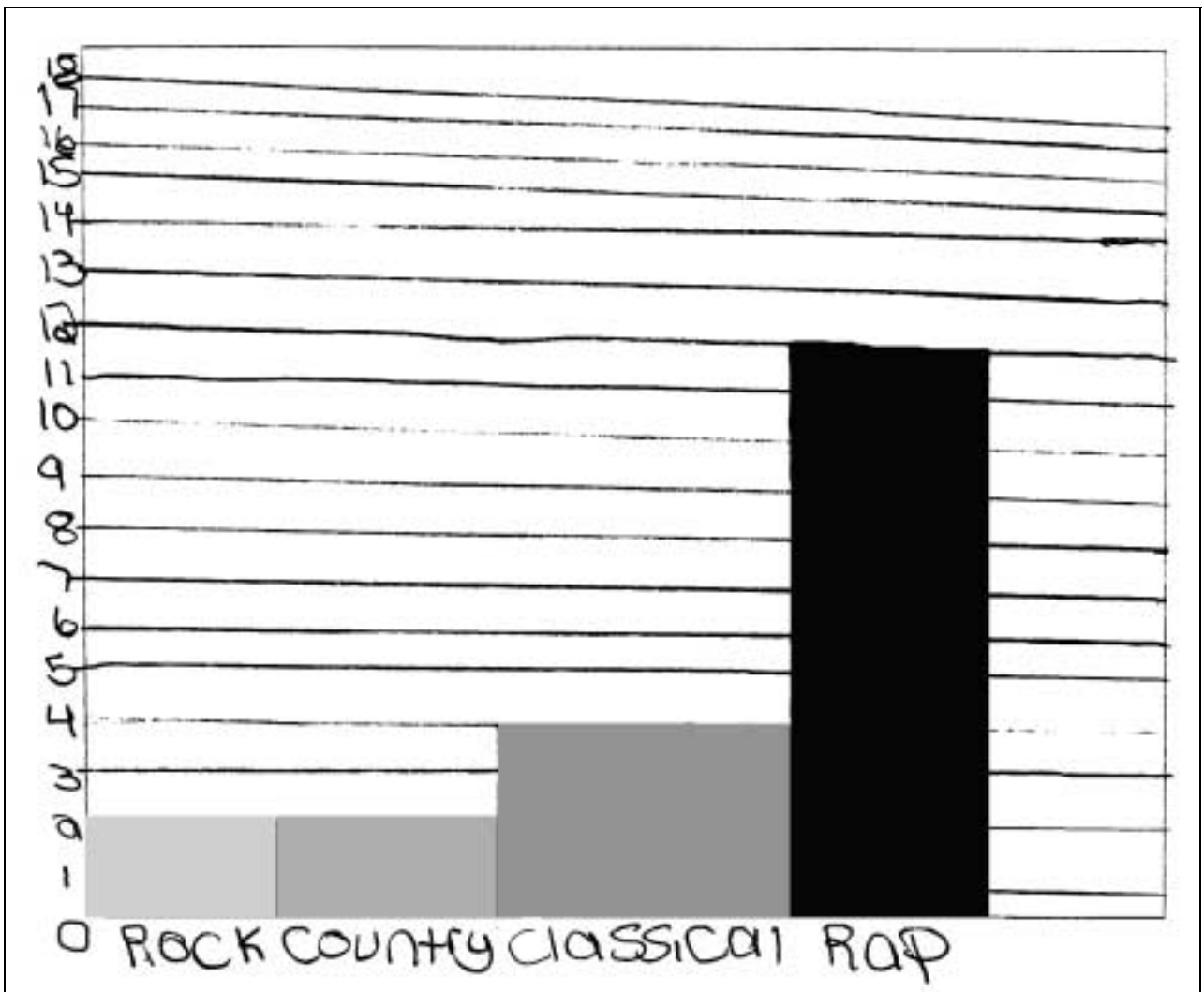
Number of trials	Classical	Rock	Rap	Country
1			X	
2	X			
3			X	
4			X	
5			X	
6			X	
7		X		
8			X	
9	X			
10			X	
11	X			
12				X
13			X	
14	X			
15			X	
16				X
17			X	
18			X	
19			X	
20		X		
Total	4	2	12	2

Test 4: Page 3 of 5

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Rock	2
Country	2
Classical	4
Rap	12

2c) Construct a graph of the results.
Label appropriately.



Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Classical Rock

Explain your answer.

Because they make up the smallest amount on the circle

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	$4/20 = 1/5$	occurred 4 times
Rock	$2/20 = 1/10$	occurred 2 times
Rap	$12/20 = 3/5$	occurred 12 times
Country	$2/20 = 1/10$	occurred 2 times

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

They are no similarities and differences.

Question 6

(8.3.2)

Which measure (mean, median, or mode) best describes the frequency of occurrence of the experiment? **Explain** why you chose that measure.

Mode, because it is the number that occurs most often.

Question 7

(8.3.2)

There are 4 musical groups performing at the State Fair.

Groups	V.I.P	Reserved	General Admission
Country Calculators	\$19.00	\$16.50	\$8.00
Rockin’ Rubrics	\$19.00	\$14.50	\$8.00
Rappin’ Rulers	\$17.00	\$12.50	\$8.00
Classical Compasses	\$15.00	\$10.50	\$8.00

Find the Mean, Median, Mode and Range of the ticket prices showing all work.

Mean =	Median =	Mode =	Range =
\$13	\$13.50	\$8	\$8 - \$19

MUSICAL TASK – TRAINING PAPERS

Test 5: Page 1 of 5

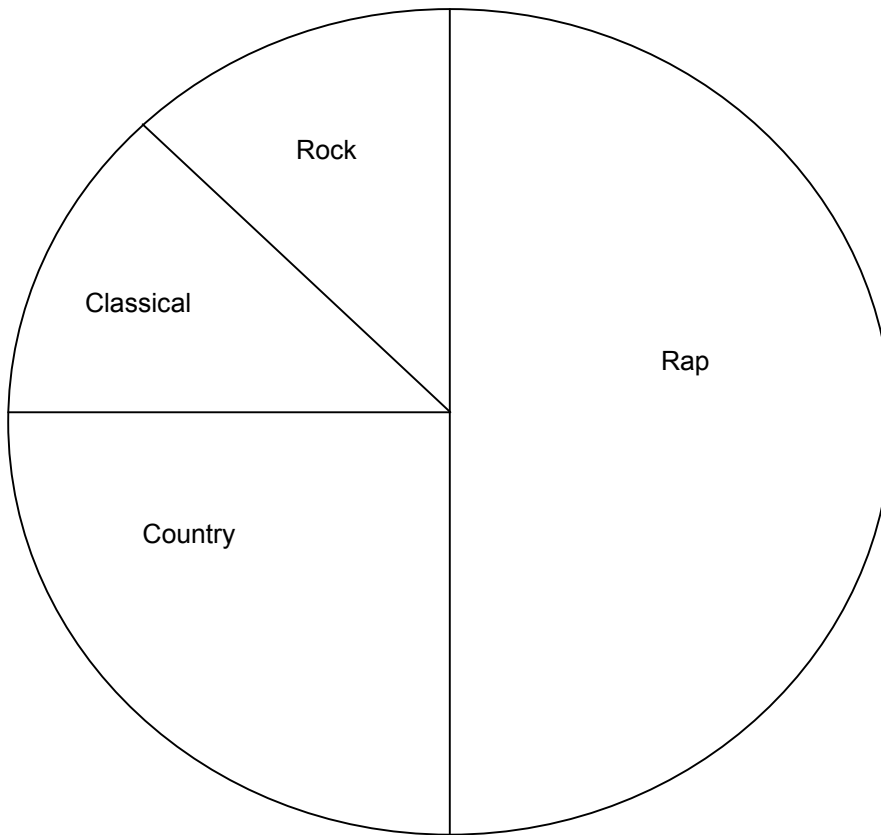
Question 1

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	$45/360 = 1/8 = 12.5\%$
Rock	$45/360 = 1/8 = 12.5\%$
Rap	$180/360 = 1/2 = 50\%$
Country	$90/360 = 1/4 = 25\%$

Circle Graph/Spinner



You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

Number of trials	Classical	Rock	Rap	Country
1				X
2				X
3	X			
4			X	
5			X	
6			X	
7			X	
8	X			
9			X	
10			X	
11			X	
12			X	
13			X	
14			X	
15		X		
16	X			
17			X	
18		X		
19				X
20	X			
Total	4	2	11	3

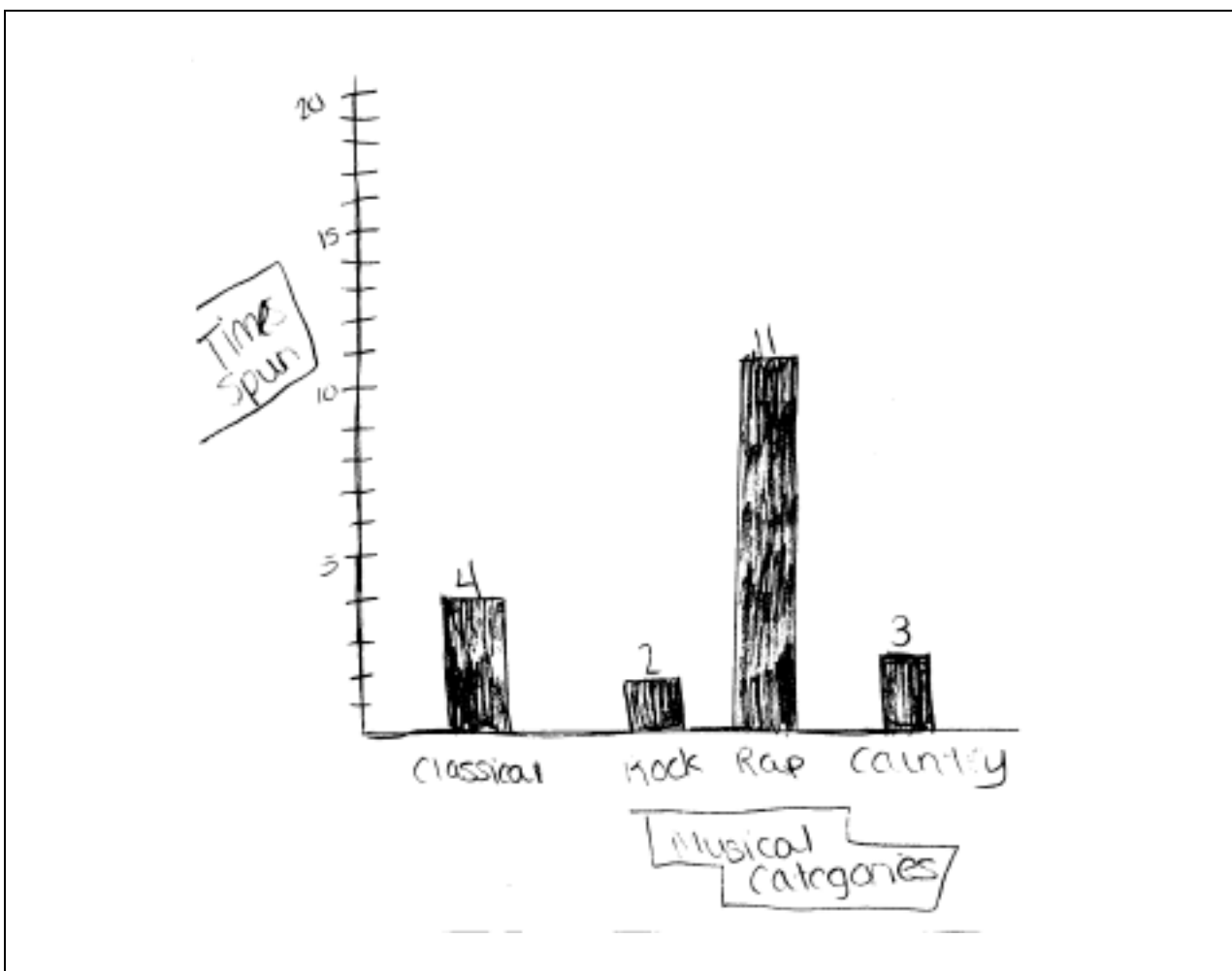
MUSICAL TASK – TRAINING PAPERS

Test 5: Page 3 of 5

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Classical	4
Rock	2
Rap	11
Country	3

2c) Construct a graph of the results.
Label appropriately.



Test 5: Page 4 of 5

Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Classical and Rock

Explain your answer.

They have the lowest probability theoretically.

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	$4/20 = 1/5 = 20\%$	It was spun 4 out of 20 times
Rock	$2/20 = 1/10 = 10\%$	It was spun 2 out of 20 times
Rap	$11/20 = 55\%$	It was spun 11 out of 20 times
Country	$3/20 = 15\%$	It was spun 3 out of 20 times

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

They came out somewhat different. The probability of rap was only off by 5%. The probabilities of Classical and Rock differed by 10%, when theoretically they should have been the same. The probability of country was lower than it should have been.

MUSICAL TASK – TRAINING PAPERS

Test 5: Page 5 of 5

Question 6

(8.3.2)

Which measure (mean, median, or mode) best describes the frequency of occurrence of the experiment? **Explain** why you chose that measure.

I think the median because the mean doesn't explain it because it rules out the top and the bottom numbers. There is no mode because there is no number used more than once so I chose median.

Question 7

(8.3.2)

There are 4 musical groups performing at the State Fair.

Groups	V.I.P	Reserved	General Admission
Country Calculators	\$19.00	\$16.50	\$8.00
Rockin' Rubrics	\$19.00	\$14.50	\$8.00
Rappin' Rulers	\$17.00	\$12.50	\$8.00
Classical Compasses	\$15.00	\$10.50	\$8.00

Find the Mean, Median, Mode and Range of the ticket prices showing all work.

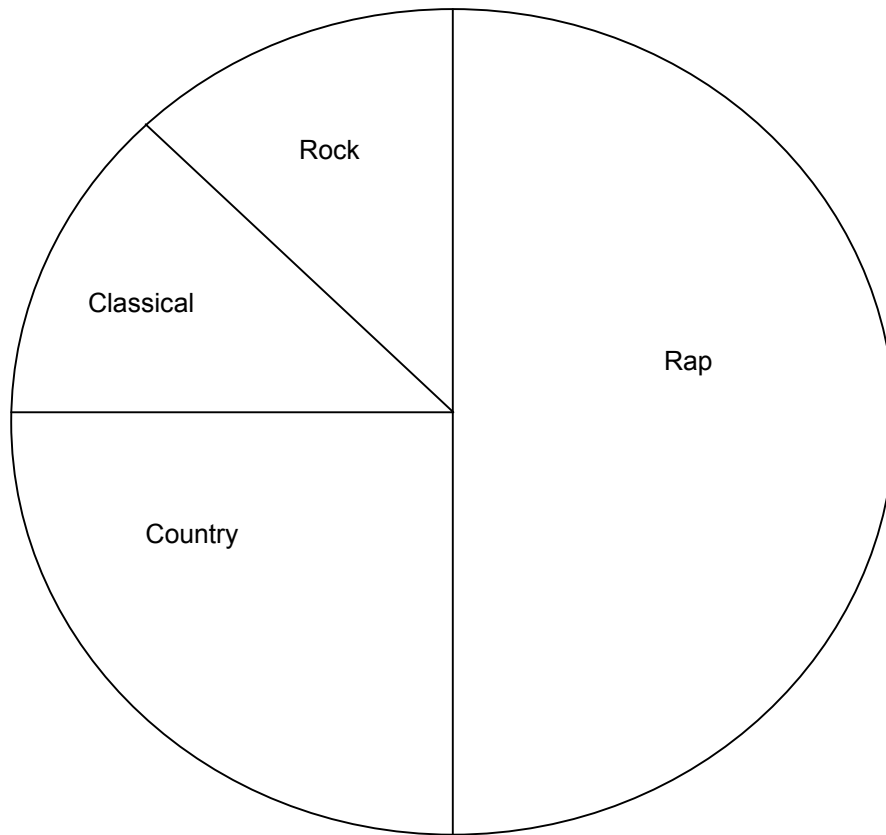
Mean = 13	Median = \$13.50	Mode = \$8.00	Range = 11
19 19 17 15 16.5 14.5 12.5 10.5 8 8 8 8 <hr/> 156	Middle numbers are $14.50 + 12.50 = 27$ $27 \div 2 = 13.50$	most used is 8	$19 - 8 = 11$

Test 6: Page 1 of 5**Question 1**

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	$20/360$
Rock	$20/360$
Rap	$160/360$
Country	$80/360$

Circle Graph/Spinner

MUSICAL TASK – TRAINING PAPERS

Test 6: Page 2 of 5

You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

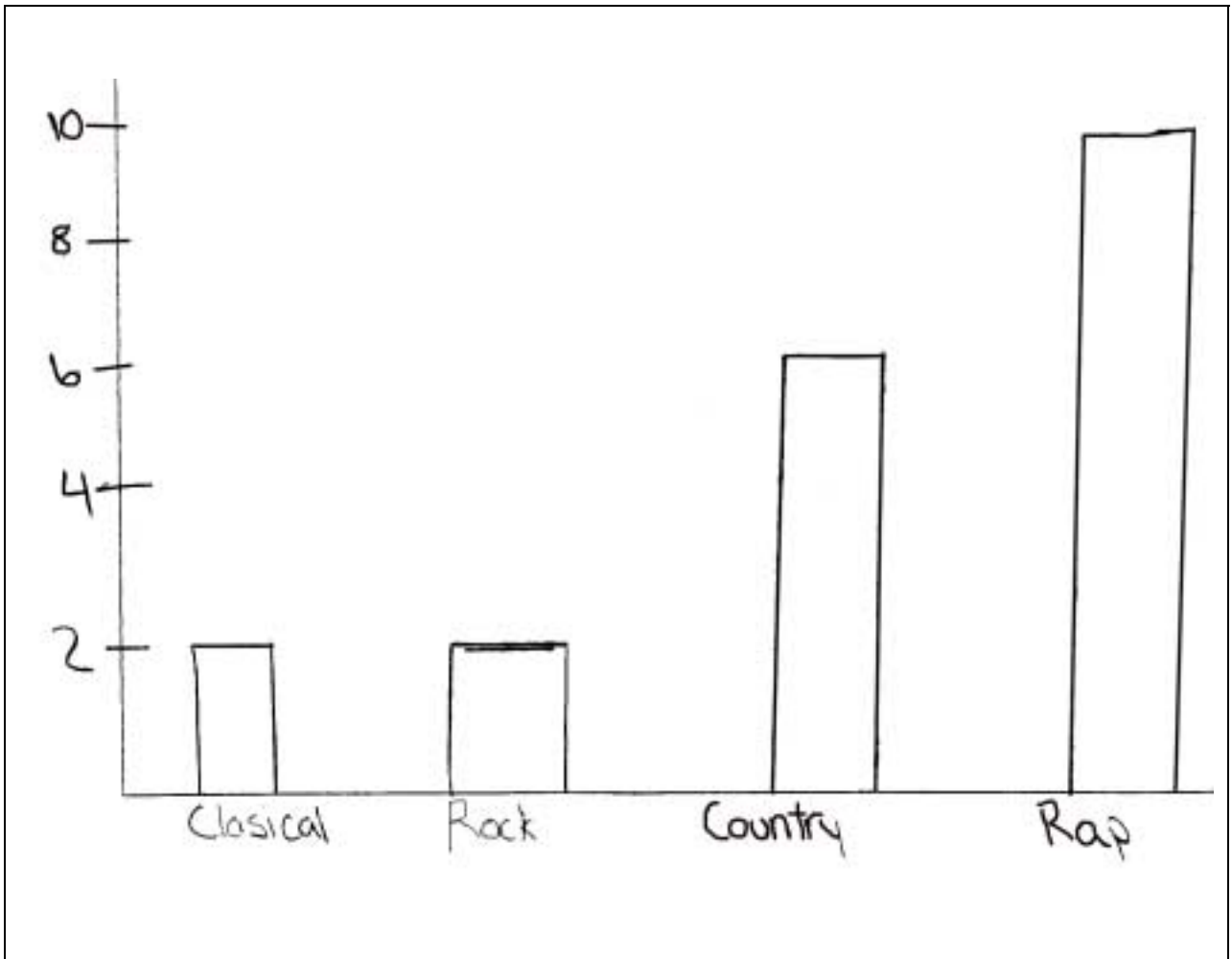
2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

Number of trials	Classical	Rock	Rap	Country
1				X
2			X	
3	X			
4			X	
5	X			
6		X		
7			X	
8			X	
9			X	
10				X
11				X
12			X	
13				X
14				X
15				X
16			X	
17			X	
18		X		
19			X	
20			X	
Total	2	2	10	6

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Classical	2
Rock	2
Country	6
Rap	10

2c) Construct a graph of the results.
Label appropriately.



Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Rock

Explain your answer.

Because it is only 1/8 of the circle towards the top.

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	2/20	out of 20 spins, 2 were rock
Rock	2/20	out of 20 spins, 2 were rock
Rap	10/20	out of 20 spins, half of them were rap
Country	6/20	out of 20 spins, 6 were country

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Same: Classical and Rock were equal
Rap was exactly $\frac{1}{2}$ of the spins

Different: Country had more spins land on it then the theoretical prob. said it would.
Classical and Rock had less.

Test 6: Page 5 of 5

Question 6

(8.3.2)

Which measure (mean, median, or mode) best describes the frequency of occurrence of the experiment? **Explain** why you chose that measure.

Mode - it gives the number that shows up the most.

Question 7

(8.3.2)

There are 4 musical groups performing at the State Fair.

Groups	V.I.P	Reserved	General Admission
Country Calculators	\$19.00	\$16.50	\$8.00
Rockin' Rubrics	\$19.00	\$14.50	\$8.00
Rappin' Rulers	\$17.00	\$12.50	\$8.00
Classical Compasses	\$15.00	\$10.50	\$8.00

Find the Mean, Median, Mode and Range of the ticket prices showing all work.

Mean = 13	Median ≈ 13	Mode = 8	Range = 11
$19+19+17+15+$ $16.50+14.50+$ $12.50+10.50+$ $8+8+8+8=$ $156\div 12=$ 13	19 19 17 15 16.5 14.5 12.5 10.5 8 8 8 8 <hr/> 156		$19-8$ 11

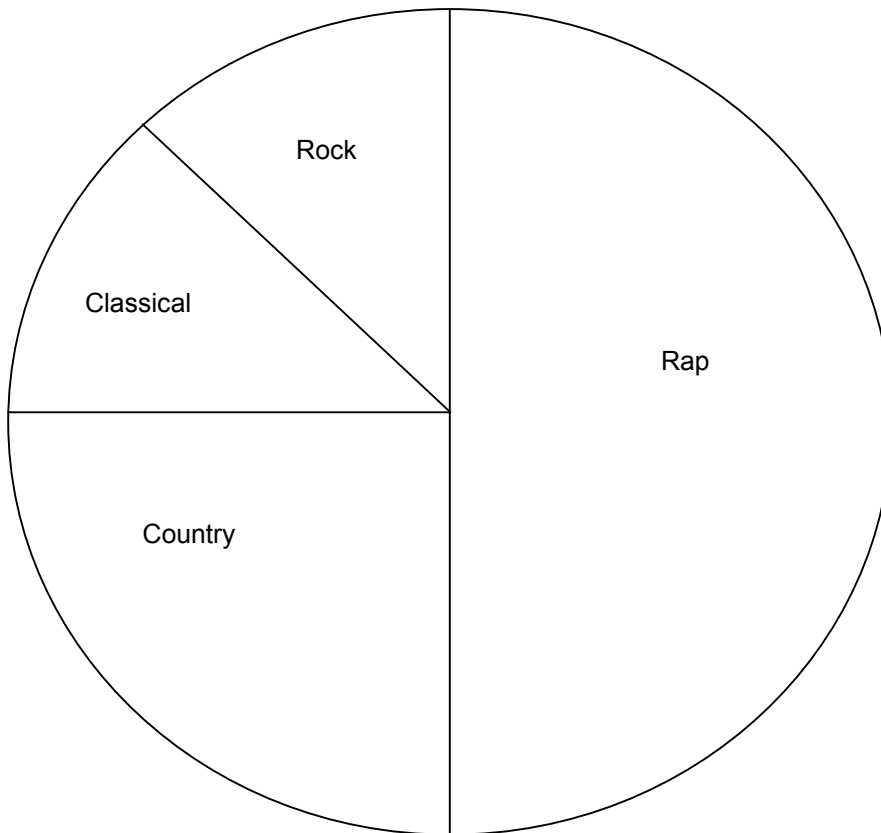
Question 1

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	1/8
Rock	1/8
Rap	1/2
Country	1/4

Circle Graph/Spinner



You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

Number of trials	Classical	Rock	Rap	Country
1	X			
2			X	
3			X	
4				X
5	X			
6			X	
7		X		
8			X	
9			X	
10			X	
11			X	
12			X	
13			X	
14			X	
15	X			
16			X	
17	X			
18	X			
19			X	
20				X
Total	5	1	12	2

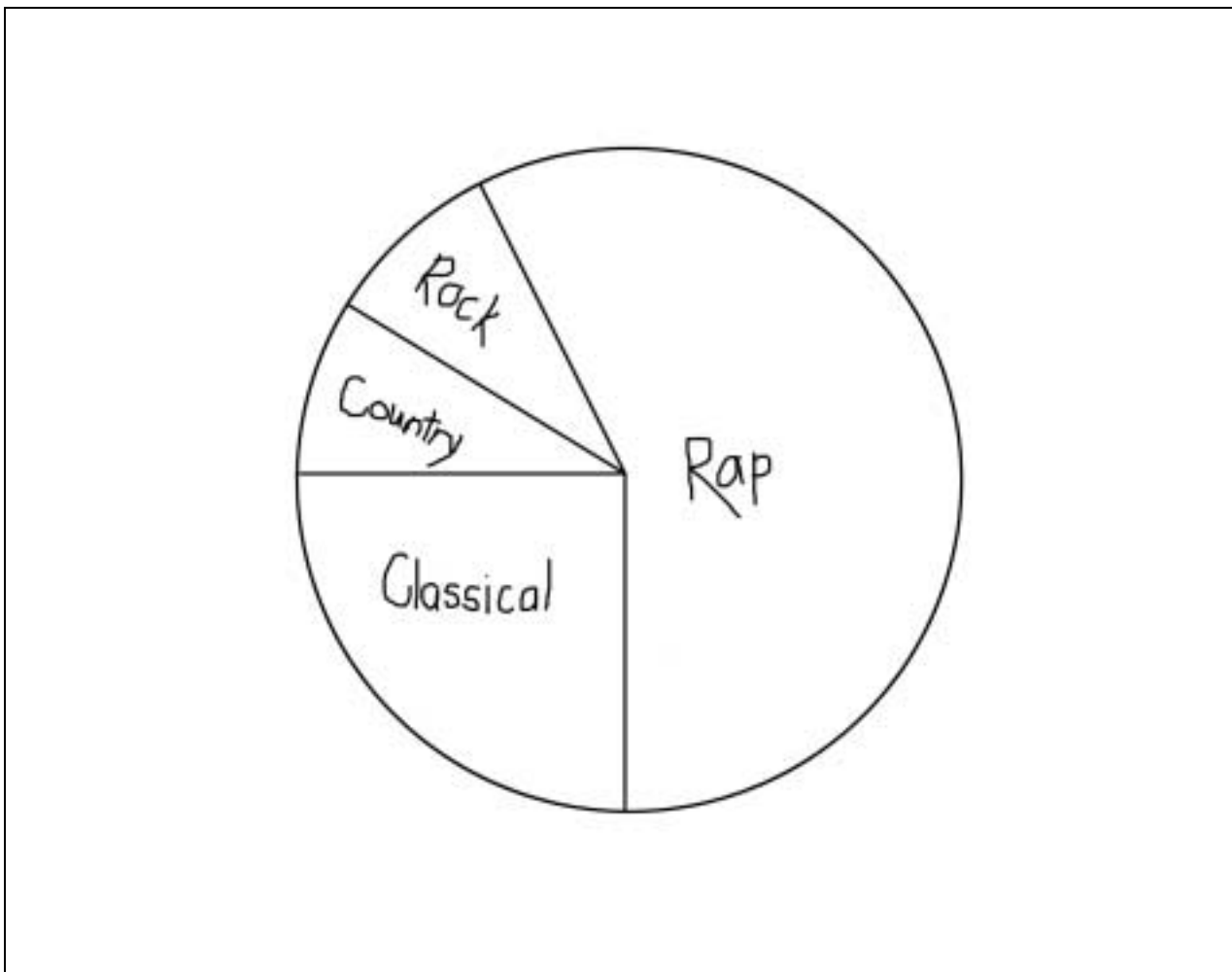
MUSICAL TASK – TRAINING PAPERS

Test 7: Page 3 of 5

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Rap	12
Classical	5
Country	2
Rock	1

2c) Construct a graph of the results.
Label appropriately.



Test 7: Page 4 of 5

Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Rock

Explain your answer.

Because it has come up the fewest times so far and it is one of the smallest pieces.

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	$5/20 = 1/4$	more than I thought it would be
Rock	$1/20$	least spins
Rap	$12/20 = 3/5$	greatest spins
Country	$2/20 = 1/10$	less than I thought it would be

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Classical should've been less than it was, because it was one of the smallest.

Rock was almost to where it was supposed to be.

Rap was just a little more than it was supposed to be.

Country was not spun as much even though it had a big piece.

Test 8: Page 1 of 5

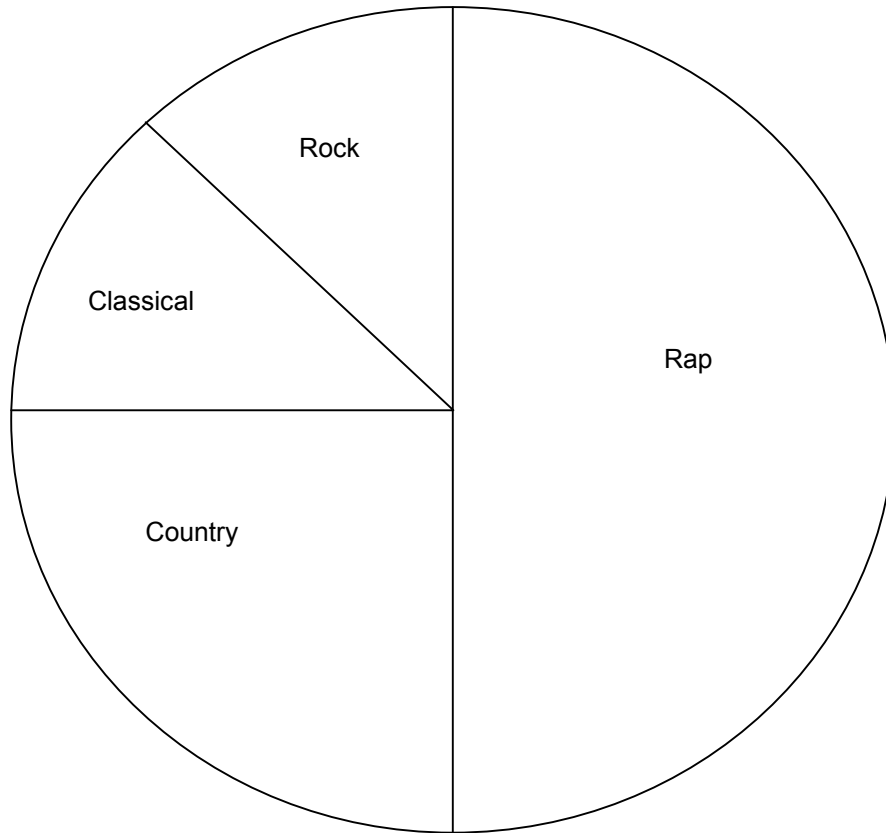
Question 1

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	1/8
Rock	1/8
Rap	1/2
Country	1/4

Circle Graph/Spinner



MUSICAL TASK – TRAINING PAPERS

Test 8: Page 2 of 5

You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

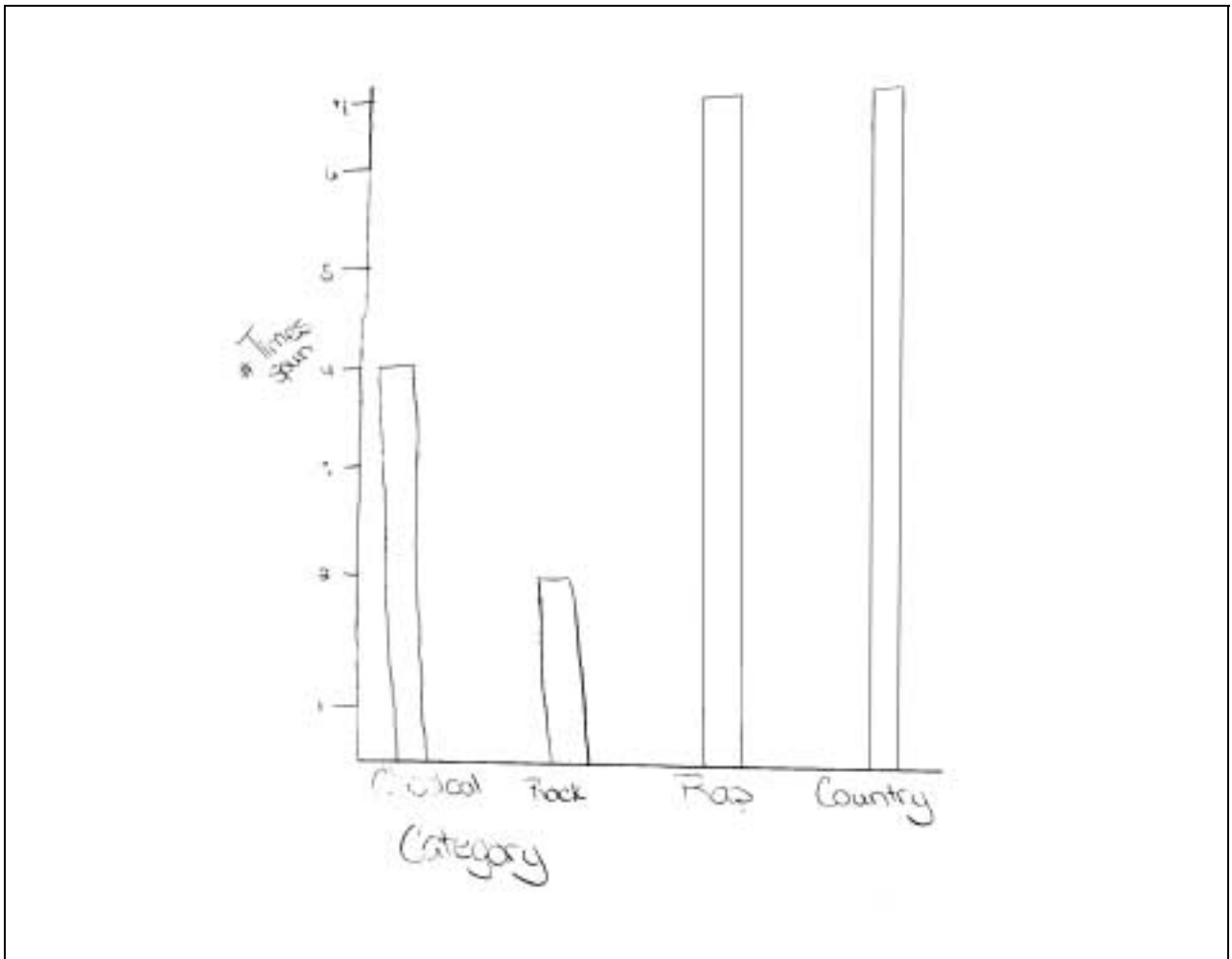
2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

Number of trials	Classical	Rock	Rap	Country
1			X	
2				X
3				X
4			X	
5				X
6		X		
7			X	
8				X
9	X			
10			X	
11	X			
12	X			
13	X			
14			X	
15			X	
16			X	
17				X
18				X
19		X		
20				X
Total	4	2	7	7

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Classical	4
Rock	2
Rap	7
Country	7

2c) Construct a graph of the results.
Label appropriately.



Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Classical and Country

Explain your answer.

They're areas are the smallest.

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	4/20	$\frac{1}{5}$ 4 times it landed on classical out of 20
Rock	2/20	$\frac{1}{10}$ 2 out of 20 times it landed on rock
Rap	7/20	$\frac{7}{20}$ 7 out of 20 times it landed on rap
Country	7/20	$\frac{7}{20}$ 7 out of 20 times it landed on country

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

Rap and Country are the 2 biggest, but they were the same.

Theoretically rap should've been bigger. Classical and rock should be the same but experimentally classical occurred more than rock.

Question 6

(8.3.2)

Which measure (mean, median, or mode) best describes the frequency of occurrence of the experiment? **Explain** why you chose that measure.

Mode - you want to find which occurs most.

Question 7

(8.3.2)

There are 4 musical groups performing at the State Fair.

Groups	V.I.P	Reserved	General Admission
Country Calculators	\$19.00	\$16.50	\$8.00
Rockin' Rubrics	\$19.00	\$14.50	\$8.00
Rappin' Rulers	\$17.00	\$12.50	\$8.00
Classical Compasses	\$15.00	\$10.50	\$8.00

Find the Mean, Median, Mode and Range of the ticket prices showing all work.

Mean = \$13	Median = 13	Mode = 8	Range = 11
156/12	19 19 17 15 16.5 14.5 12.5 10.5 8 8 8 8 8 156	8 occurred 4 times That's the most out of the 12 numbers.	19-8

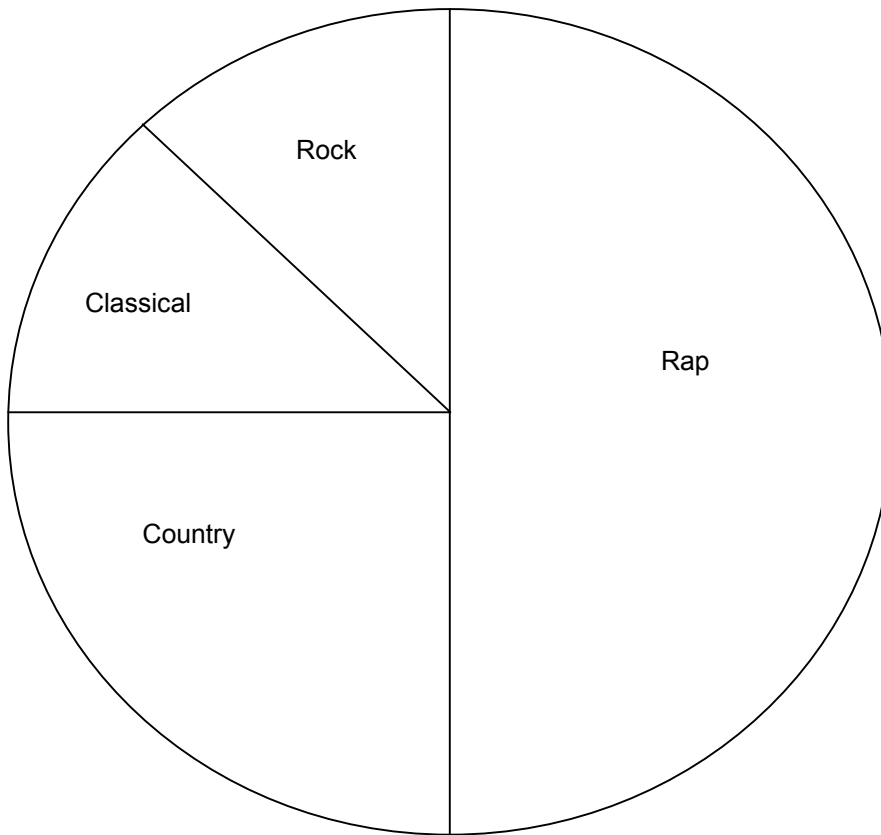
Question 1

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	1/8
Rock	1/8
Rap	1/2
Country	1/4

Circle Graph/Spinner



You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

Number of trials	Classical	Rock	Rap	Country
1				X
2			X	
3			X	
4	X			
5			X	
6			X	
7			X	
8			X	
9		X		
10			X	
11				X
12			X	
13				X
14			X	
15				X
16	X			
17				X
18				X
19			X	
20		X		
Total	2	2	10	6

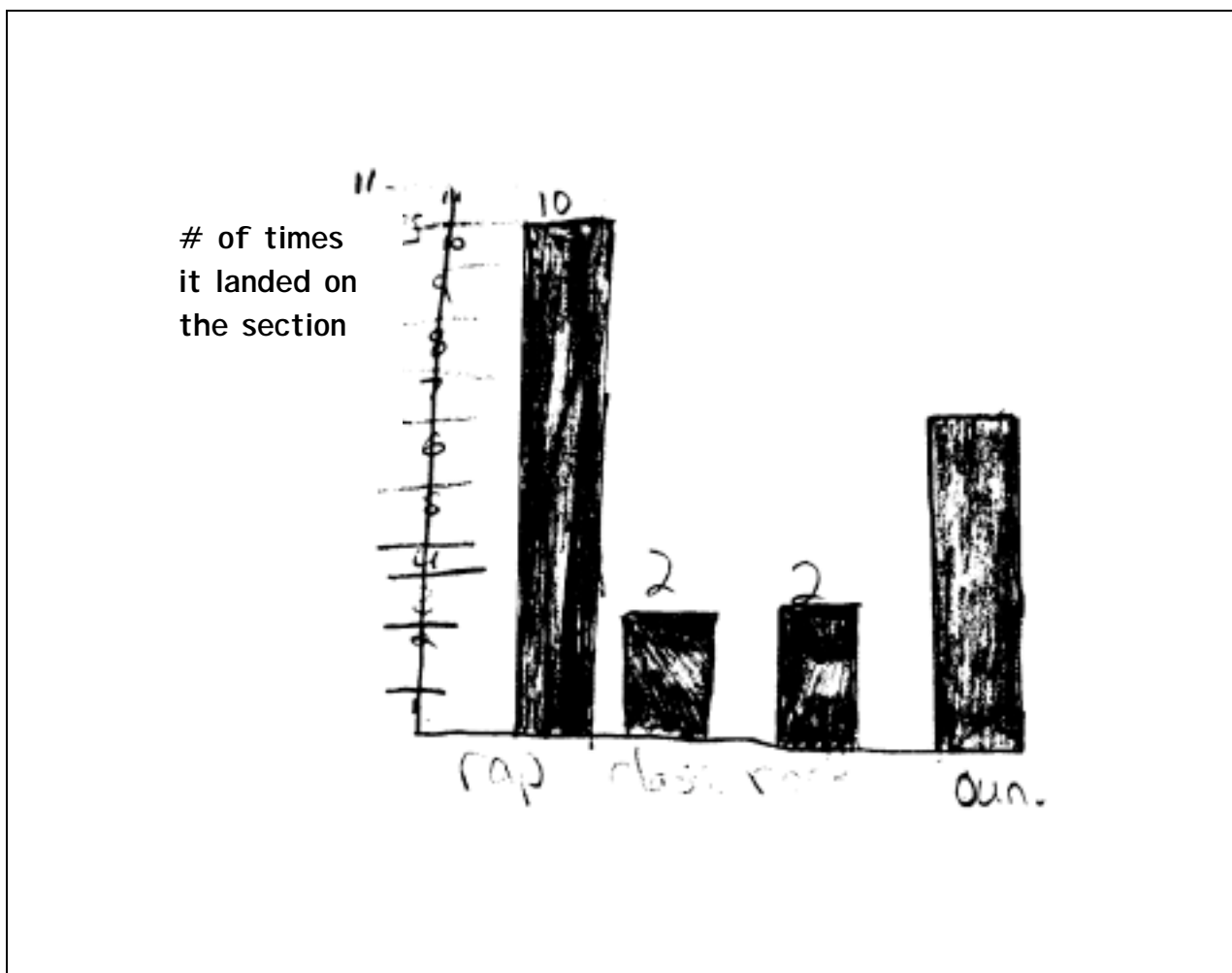
MUSICAL TASK – TRAINING PAPERS

Test 9: Page 3 of 5

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Rap	10
Classical	2
Rock	2
Country	6

2c) Construct a graph of the results.
Label appropriately.



Test 9: Page 4 of 5

Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Rock and Classical

Explain your answer.

Because they have the smallest area

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	1/10	it is smallest
Rock	1/10	it is smallest
Rap	1/2	it is the biggest size
Country	3/10	it has a med. size

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

They came out real close. They won't be exact all the time.

MUSICAL TASK – TRAINING PAPERS

Test 9: Page 5 of 5

Question 6

(8.3.2)

Which measure (mean, median, or mode) best describes the frequency of occurrence of the experiment? **Explain** why you chose that measure.

Mean - because it is the average of all the times spinning it.

Question 7

(8.3.2)

There are 4 musical groups performing at the State Fair.

Groups	V.I.P	Reserved	General Admission
Country Calculators	\$19.00	\$16.50	\$8.00
Rockin' Rubrics	\$19.00	\$14.50	\$8.00
Rappin' Rulers	\$17.00	\$12.50	\$8.00
Classical Compasses	\$15.00	\$10.50	\$8.00

Find the Mean, Median, Mode and Range of the ticket prices showing all work.

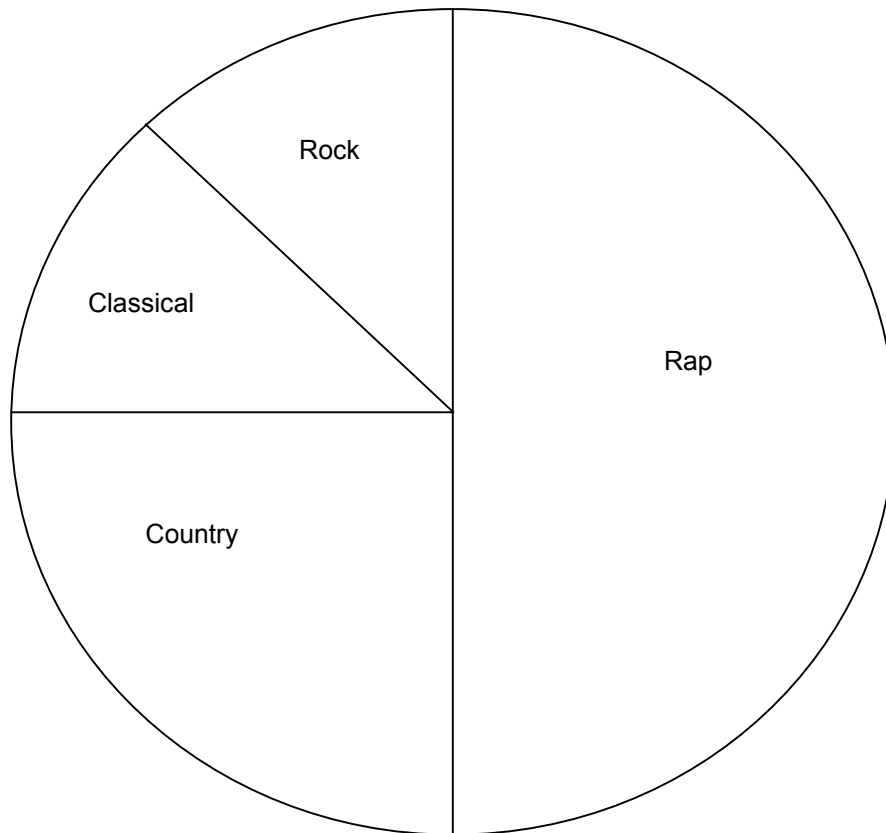
Mean = 13	Median = 13.5	Mode = 8	Range = 11
$ \begin{array}{r} 19+19+17+15+ \\ 16.5+14.5+ \\ 12.5+10.5+ \\ 8+8+8+8= \\ \hline 12 \\ 156 \\ \hline 12 = 13 \\ \boxed{=13} \end{array} $	$ \begin{array}{r} 19 \\ 19 \\ 17 \\ 16.5 \\ 15 \\ \hline 14.5 \\ 12.5 \\ 10.5 \\ 8 \\ 8 \\ 8 \\ 8 \end{array} $	$ \begin{array}{r} 19 \\ 19 \\ 17 \\ 16.5 \\ 15 \\ 14.5 \\ 12.5 \\ 10.5 \\ \boxed{8} \\ 8 \\ 8 \\ 8 \\ 8 \end{array} $	$ \begin{array}{r} 19-8 \\ 11 \end{array} $

Test 10: Page 1 of 5**Question 1**

(8.3.6)

What would be the theoretical probability of spinning each of the musical categories from the spinner provided?

Musical Categories	Theoretical Probability
Classical	12.5%
Rock	12.5%
Rap	50%
Country	25%

Circle Graph/Spinner

MUSICAL TASK – TRAINING PAPERS

Test 10: Page 2 of 5

You will need to use the circle graph/spinner on previous page. Place the tip of the pencil at the end of the paper clip on the center point of the circle graph to create your spinner.

Question 2

(8.3.1)

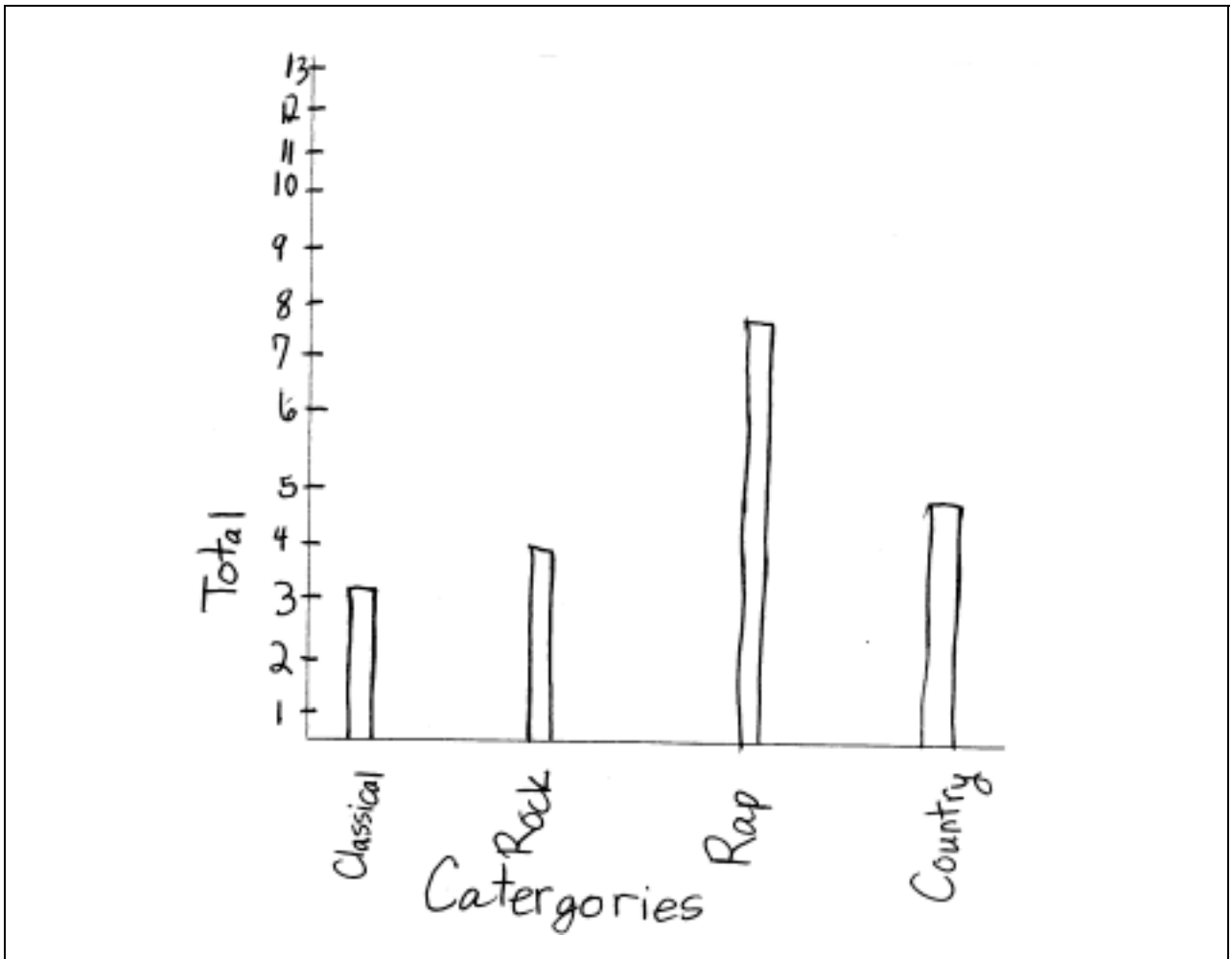
2a) Experiment – Spin the paper clip 20 times and record your results on the tally sheet below. Record the total for each column at the bottom of the tally sheet.

Number of trials	Classical	Rock	Rap	Country
1			X	
2				X
3			X	
4			X	
5				X
6	X			
7			X	
8			X	
9		X		
10		X		
11	X			
12		X		
13			X	
14				X
15				X
16	X			
17				X
18			X	
19		X		
20			X	
Total	3	4	8	5

2b) Use your tally sheet from Question 2a to organize your results on the table below.

Musical Categories	Number of times recorded (Total)
Classical	3
Rock	4
Rap	8
Country	5

2c) Construct a graph of the results.
Label appropriately.



Question 3

(8.3.4)

If you conducted this experiment 100 times, which category/categories would most likely occur the **fewest** number of times?

Classical

Explain your answer.

It got the least in the experiment.

Question 4

(8.3.5)

Using the frequency table from Question 2b, what is the experimental probability of each musical category?

Musical Category	Experimental Probability	Explanation
Classical	3/20	added how many number and dividing
Rock	4/20	added how many number and dividing
Rap	8/20	added how many number and dividing
Country	5/20	added how many number and dividing

Question 5

(8.3.3)

Compare the probabilities of all musical categories from Question 1 with your results in Question 4. Explain the similarities and differences.

The answers are pretty close but not exactly the same. The percentages almost match the actual.

Test 10: Page 5 of 5

Question 6

(8.3.2)

Which measure (mean, median, or mode) best describes the frequency of occurrence of the experiment? **Explain** why you chose that measure.

Mode - It is how many times a category occurs.

Question 7

(8.3.2)

There are 4 musical groups performing at the State Fair.

Groups	V.I.P	Reserved	General Admission
Country Calculators	\$19.00	\$16.50	\$8.00
Rockin' Rubrics	\$19.00	\$14.50	\$8.00
Rappin' Rulers	\$17.00	\$12.50	\$8.00
Classical Compasses	\$15.00	\$10.50	\$8.00

Find the Mean, Median, Mode and Range of the ticket prices showing all work.

Mean = 13	Median = 12.50	Mode =	Range = 11
$ \begin{array}{r} 19+19+17+15+ \\ 16.50+14.50+ \\ 12.50+10.50+ \\ \hline 8+8+8+8 \\ \hline 12 \end{array} $		<p>2 19s 4 8s</p>	

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**NORTH DAKOTA
MATHEMATICS TEST**

**REPLACEMENT ITEM
GRADE 8**

COMBINED SCORING SHEETS

Musical Task

Combined Scoring Sheets

STEP 1

Transfer your ratings for the benchmarks for the task from the Scoring Sheet to this page. Then calculate the difference between the State's Rating and Your Rating.

QUESTION 1

- Benchmark 8.3.6: Understand and apply the basic notion of probability.

Training Paper	State's Rating	Your Rating	Difference
1	4		
2	4		
3	4		
4	2		
5	4		
6	0		
7	4		
8	4		
9	4		
10	4		

STEP 2

Count the number of negative numbers, positive numbers, and zeros in the Difference Column.

Negative numbers:		This is the number of times you were TOO LENIENT in relationship to state scoring.
Positive numbers:		This is the number of times you were TOO HARSH in relationship to state scoring.
Zeros:		This is the number of times you were RIGHT ON in relationship to state scoring.

STEP 1

Transfer your ratings for the benchmarks for the task from the Scoring Sheet to this page. Then calculate the difference between the State’s Rating and Your Rating.

QUESTION 2

- Benchmark 8.3.1: Collect, read, and display data using appropriate techniques and technology.

Training Paper	State’s Rating	Your Rating	Difference
1	2		
2	2		
3	2		
4	2		
5	3		
6	2		
7	2		
8	3		
9	3		
10	3		

STEP 2

Count the number of negative numbers, positive numbers, and zeros in the Difference Column.

Negative numbers:		This is the number of times you were TOO LENIENT in relationship to state scoring.
Positive numbers:		This is the number of times you were TOO HARSH in relationship to state scoring.
Zeros:		This is the number of times you were RIGHT ON in relationship to state scoring.

MUSICAL TASK – COMBINED SCORING SHEETS

STEP 1

Transfer your ratings for the benchmarks for the task from the Scoring Sheet to this page. Then calculate the difference between the State's Rating and Your Rating.

QUESTION 3

- Benchmark 8.3.4: Identifies basic trends in tables and graphs and uses these trends to make predictions.

Training Paper	State's Rating	Your Rating	Difference
1	2		
2	4		
3	4		
4	4		
5	4		
6	2		
7	2		
8	4		
9	4		
10	2		

STEP 2

Count the number of negative numbers, positive numbers, and zeros in the Difference Column.

Negative numbers:		This is the number of times you were TOO LENIENT in relationship to state scoring.
Positive numbers:		This is the number of times you were TOO HARSH in relationship to state scoring.
Zeros:		This is the number of times you were RIGHT ON in relationship to state scoring.

STEP 1

Transfer your ratings for the benchmarks for the task from the Scoring Sheet to this page. Then calculate the difference between the State’s Rating and Your Rating.

QUESTION 4

- Benchmark 8.3.5: Determine probabilities through experiments or simulations.

Training Paper	State’s Rating	Your Rating	Difference
1	1		
2	3		
3	3		
4	3		
5	4		
6	4		
7	3		
8	4		
9	3		
10	3		

STEP 2

Count the number of negative numbers, positive numbers, and zeros in the Difference Column.

Negative numbers:		This is the number of times you were TOO LENIENT in relationship to state scoring.
Positive numbers:		This is the number of times you were TOO HARSH in relationship to state scoring.
Zeros:		This is the number of times you were RIGHT ON in relationship to state scoring.

MUSICAL TASK – COMBINED SCORING SHEETS

STEP 1

Transfer your ratings for the benchmarks for the task from the Scoring Sheet to this page. Then calculate the difference between the State's Rating and Your Rating.

QUESTION 5

- Benchmark 8.3.3: Evaluates arguments that are based on statistical claim.

Training Paper	State's Rating	Your Rating	Difference
1	3		
2	4		
3	3		
4	1		
5	3		
6	3		
7	2		
8	3		
9	2		
10	2		

STEP 2

Count the number of negative numbers, positive numbers, and zeros in the Difference Column.

Negative numbers:		This is the number of times you were TOO LENIENT in relationship to state scoring.
Positive numbers:		This is the number of times you were TOO HARSH in relationship to state scoring.
Zeros:		This is the number of times you were RIGHT ON in relationship to state scoring.

STEP 1

Transfer your ratings for the benchmarks for the task from the Scoring Sheet to this page. Then calculate the difference between the State’s Rating and Your Rating.

QUESTION 6 and 7

- Benchmark 8.3.2: Displays and uses measures of central tendency and measures of variability.

Training Paper	State’s Rating	Your Rating	Difference
1	2		
2	1		
3	3		
4	3		
5	2		
6	3		
7	3		
8	3		
9	2		
10	2		

STEP 2

Count the number of negative numbers, positive numbers, and zeros in the Difference Column.

Negative numbers:		This is the number of times you were TOO LENIENT in relationship to state scoring.
Positive numbers:		This is the number of times you were TOO HARSH in relationship to state scoring.
Zeros:		This is the number of times you were RIGHT ON in relationship to state scoring.

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