

# NCTM Content Standards Assessment Rubric

## Data Analysis and Probability



Student's Name: \_\_\_\_\_ Assignment: \_\_\_\_\_ Level: \_\_\_\_\_

	Level 1	Level 2	Level 3	Level 4
Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them	<ul style="list-style-type: none"> <li>• Demonstrates a limited ability to formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a basic ability to formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a good ability to formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a thorough ability to formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them</li> </ul>
Select and use appropriate statistical methods to analyze data	<ul style="list-style-type: none"> <li>• Demonstrates a limited ability to select and use appropriate statistical methods to analyze data</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a basic ability to select and use appropriate statistical methods to analyze data</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a good ability to select and use appropriate statistical methods to analyze data</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a thorough ability to select and use appropriate statistical methods to analyze data</li> </ul>
Develop and evaluate inferences and predictions that are based on data	<ul style="list-style-type: none"> <li>• Demonstrates a limited ability to develop and evaluate inferences and predictions that are based on data</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a basic ability to develop and evaluate inferences and predictions that are based on data</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a good ability to develop and evaluate inferences and predictions that are based on data</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a thorough ability to develop and evaluate inferences and predictions that are based on data</li> </ul>
Understand and apply basic concepts of probability	<ul style="list-style-type: none"> <li>• Demonstrates a limited ability to understand and apply basic concepts of probability</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a basic ability to understand and apply basic concepts of probability</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a good ability to understand and apply basic concepts of probability</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a thorough ability to understand and apply basic concepts of probability</li> </ul>

STRENGTHS:

WEAKNESSES:

NEXT STEPS:

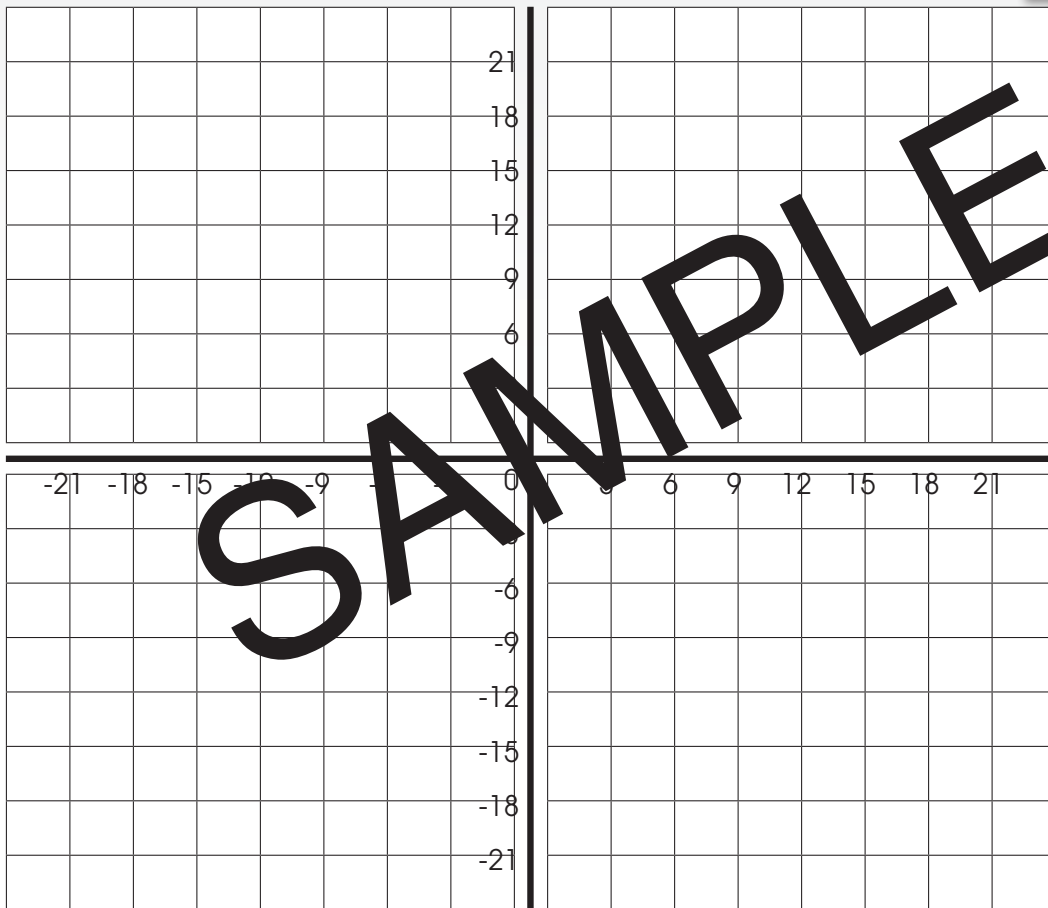
NAME: \_\_\_\_\_



# Task Sheet 10

10) Graph the following coordinates on the grid. Show each coordinate with a star.

- a) 0, -15
- b) 6, 12
- c) -9, 9
- d) 21, 21
- e) -3, 15
- f) -18, -12



## Reflection

What patterns do you see in the coordinates? Explain.

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NAME: \_\_\_\_\_



# Drill Sheet 2

An outlier is a number that is significantly different from the rest of the grouping of numbers.

The following goals were scored at a basketball game.

The goals were scored at 1:56, 2:18, 2:35, 3:19, 4:12, 4:48, 1:56, 3:22, and 12:23.

- a) **What is the mode?**
- b) **What is the median?**
- c) **What is the range?**
- d) **What is the mean?**
- e) **Which time is the outlier?**
- f) **Calculate the mean, median, range, and mode without the outlier.**
  - Mean
  - Median
  - Mode
  - Range

g) **Explain how excluding the outlier changes the data. Is it a significant change. Why or why not?**

\_\_\_\_\_

\_\_\_\_\_

h) **How can you explain the outlier?**

\_\_\_\_\_

\_\_\_\_\_

# Mean, Median and Mode



Survey the class about how many hours they play video or computer games per week.



a) Finish creating the tally sheet then record the data collected.

Computer and Video Game time	Mon	Tue	Wed	Thur	Fri	Sat	Sun

b) Create two graphs that represent the data.



SAMPLE

c) What is the mean of the time spent on games weekly?

d) What is the mode of time spent on games weekly?

e) What is the median of time spent on games weekly?

f) What is the range of time spent on games weekly?

g) What is the percentage of time spent on games weekly?

h) Which day of the week do more students play games on?