

NCTM Content Standards Assessment Rubric

Data Analysis & Probability – Drill Sheets

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"> Demonstrates a limited ability to formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them 	<ul style="list-style-type: none"> Demonstrates a basic ability to formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them 	<ul style="list-style-type: none"> Demonstrates a good ability to formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them 	<ul style="list-style-type: none"> Demonstrates a thorough ability to formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them
Select and use appropriate statistical methods to analyze data	<ul style="list-style-type: none"> Demonstrates a limited ability to select and use appropriate statistical methods to analyze data 	<ul style="list-style-type: none"> Demonstrates a basic ability to select and use appropriate statistical methods to analyze data 	<ul style="list-style-type: none"> Demonstrates a good ability to select and use appropriate statistical methods to analyze data 	<ul style="list-style-type: none"> Demonstrates a thorough ability to select and use appropriate statistical methods to analyze data
Develop and evaluate inferences and predictions that are based on data	<ul style="list-style-type: none"> Demonstrates a limited ability to develop and evaluate inferences and predictions that are based on data 	<ul style="list-style-type: none"> Demonstrates a basic ability to develop and evaluate inferences and predictions that are based on data 	<ul style="list-style-type: none"> Demonstrates a good ability to develop and evaluate inferences and predictions that are based on data 	<ul style="list-style-type: none"> Demonstrates a thorough ability to develop and evaluate inferences and predictions that are based on data

STRENGTHS:

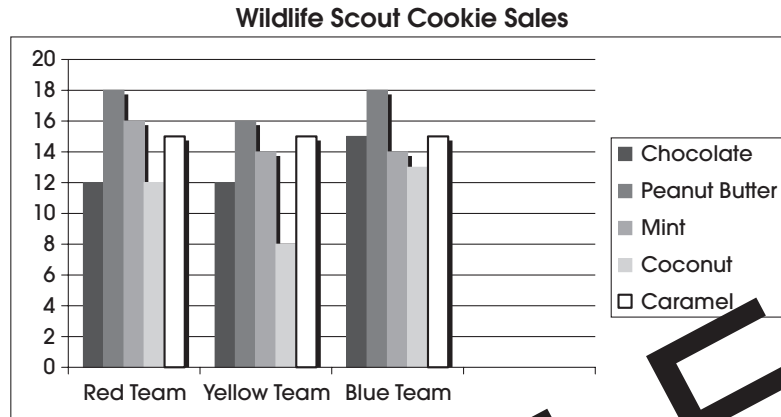
WEAKNESSES:

NEXT STEPS:



Review C

a) The following column chart shows the number of boxes of each type of cookie sold for three different groups at the Wildlife Scout cookie sale.



- i) How many total cookie sales did the Red Team have? _____
- ii) How many total cookie sales did the Yellow Team have? _____
- iii) How many total cookie sales did the Blue Team have? _____
- iv) Forty percent of the cookie sales for the Blue Team were for which two cookies? _____
- v) Thirty four cookie sales for the Red Team were which two varieties? _____
- vi) The Yellow Team had twice as many Peanut Butter cookie sales as sales of which cookie? _____
- vii) The Yellow Team and Red Team both had 12 of which cookie sales? _____
- viii) The three teams had equal sales for which type of cookie? _____
- ix) The Red Team had an equal number of which cookies sold? _____
- x) The Blue Team has a 1:1 ratio in which two cookie sales? _____
- xi) What is the ratio in Mint Cookie sales between the Yellow Team and Blue Team? _____
- xii) Twenty percent more of which cookies were sold by the Red Team than Caramel cookies? _____
- xiii) Which team had the smallest number of sales for one type of cookie? _____
- xiv) What is the ratio of Peanut Butter sales to Chocolate sales for the red team? _____
- xv) There is one less total sales of which cookies than there were total sales of Caramel cookies for all three teams? _____
- xvi) What is the average number of Chocolate cookie sales for all three teams? _____

SAMPLE

Proportions and Fractions



The tally chart below shows how people responded to a question about ice cream flavors. Work with a partner or small group to answer the questions below.



Flavor	Student's responding
Vanilla	/////
Chocolate	///// /////
Butternut	///
Mint	///// /
Rocky road	//
Watermelon	///

- a) What question might students have been asked in order to get the results shown on this chart?
- _____
- b) List the flavors in order from most votes to least votes.
- _____
- c) Identify how many students were asked to participate in this chart.
- _____
- d) Make three proportions for this chart (example, what is the ratio of students who chose chocolate to students who chose watermelon).
- _____
- _____
- _____
- e) Make three fractions based on this chart (example, what fraction of the total students selected rocky road).
- _____
- _____
- _____
- f) As a group, decide what type of graph best shows this data. Then, put this data into the graph.