

# Process Standards Rubric

## Data Analysis and Probability

Exercise	Expectations Instructional programs from pre-kindergarten through grade 12 should enable all students to:	GOAL 1: Problem Solving				GOAL 2: Reasoning & Proof				GOAL 3: Communication				GOAL 4: Connections				GOAL 5: Representation			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Drill Sheet 1	Drill Sheet 2	Review A	Review B	Review C
	<ul style="list-style-type: none"> <li>build new mathematical knowledge through problem solving;</li> <li>solve problems that arise in mathematics and in other contexts;</li> <li>apply and adapt a variety of appropriate strategies to solve problems;</li> <li>monitor and reflect on the process of mathematical problem solving.</li> </ul>																				
	<ul style="list-style-type: none"> <li>recognize reasoning and proof as fundamental aspects of mathematics;</li> <li>make and investigate mathematical conjectures;</li> <li>develop and evaluate mathematical arguments and proofs;</li> <li>select and use various types of reasoning and methods of proof.</li> </ul>																				
	<ul style="list-style-type: none"> <li>organize and consolidate their mathematical thinking through communication;</li> <li>communicate their mathematical thinking coherently and clearly to peers, teachers, and others;</li> <li>analyze and evaluate the mathematical thinking and strategies of others;</li> <li>use the language of mathematics to express mathematical ideas precisely.</li> </ul>																				
	<ul style="list-style-type: none"> <li>recognize and use connections among mathematical ideas;</li> <li>understand how mathematical ideas interconnect and build on one another to produce a coherent whole;</li> <li>recognize and apply mathematics in contexts outside of mathematics.</li> </ul>																				
	<ul style="list-style-type: none"> <li>create and use representations to organize, record, and communicate mathematical ideas;</li> <li>select, apply, and translate among mathematical representations to solve problems;</li> <li>use representations to model and interpret physical, social, and mathematical phenomena.</li> </ul>																				

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



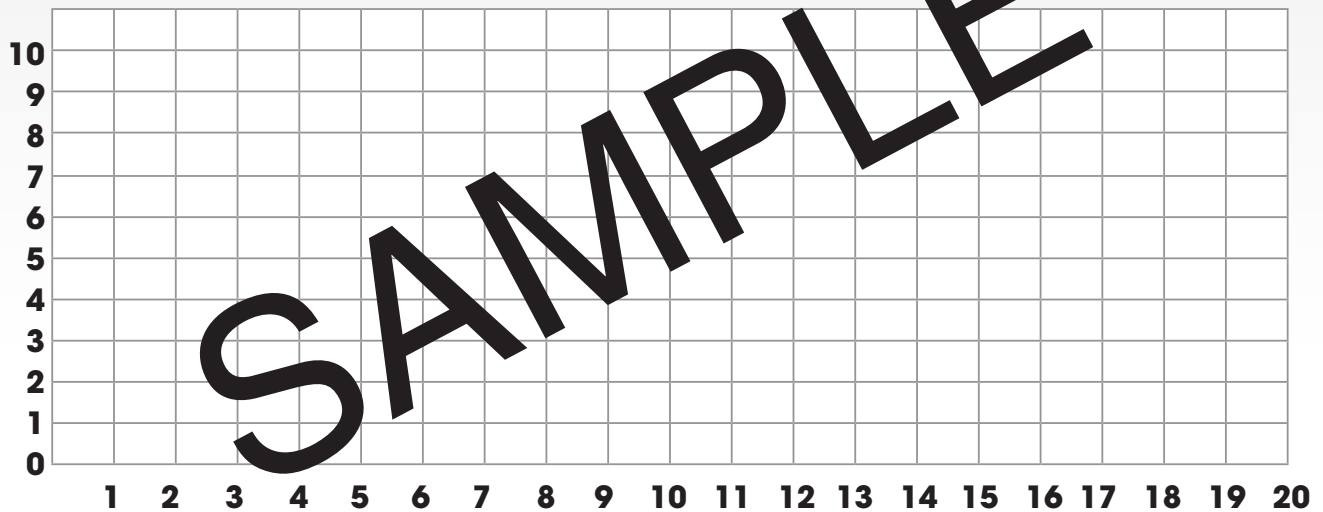
# Task Sheet 13

**13)** Damario, Elonzo, Felipe, and Victorio all took shots on the goal for the men's soccer team. They made their shots from:  
9, 12, 2, 5, 9, 14, 3, 3, 1, 4, 9, 3, 6, 8, 7, 3 feet.

Kalle, Akira, Sabre, and Lanelle took shots on the goal for the women's soccer team. They made their shots from:  
14, 12, 9, 5, 5, 4, 2, 1, 12, 5, 3, 6, 8, 9, 5, 4 feet.



Label and plot these distances in a Scatter plot graph below for the men and the women. Use circles for the men and triangles for the women. Then, answer the questions below.



a) How many shots were taken 4 feet from the goal?

b) How many players made the shot 9 feet from the goal?

c) Is there a correlation between the shots made and the distance from the goal?

d) Is the correlation weak or strong?

e) Is the correlation positive or negative?



# Review C

All 260 students at Pamela’s school were surveyed on their favorite type of snack. The results were:

Chips	55
Cookies	25
Granola Bars	16
Fruit	39
Yogurt	16
Candy	42
Chocolate	67

On a separate piece of paper, show this information in two different types of graphs. Answer the following questions for both graphs.

a) What two graphs did you choose to represent the information above and why?

\_\_\_\_\_

\_\_\_\_\_

b) Which snack was chosen the most? The least?

\_\_\_\_\_

c) What inferences can you make from the information gathered in the survey?

\_\_\_\_\_

d) What percentage of students chose yogurt and fruit for their snack?

\_\_\_\_\_

## Explore With Technology



Visit <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>. Use the food guide to graph the food choices by the students for their snacks. Create your own food guide and assess the data you input in percentage and ratio form.

# Bar and Pictograph



In Berryville, residents grow blueberries. The Phan's grow 752 blueberry bushes. The Edgar's grow 350 blueberry bushes. The Martel's and the Vanderbilt's both have 800 blueberry bushes. The Caspian's and the McDougal's have 500 blueberry bushes each.



Create a bar graph and a pictograph to display this information.

