

Activity Set 7.1: # 4, 6

(20/20)

Understanding	Accuracy	Communication	Presentation	Total
2	1)2 2)2 3)2 4)2	2	2	14

4. *Math Concepts:* Explore scatter plots and trend lines further by answering the questions about the distribution of M&M's in the **Just for Fun Activity** (#'s 1, 2, 3, 4) in this section.

Just For Fun

1. Plot all Blue/Brown pairs on the grid. Draw a trend line to see if there is any relationship.
2. Assume that you purchase the same size bag of candy as those in the table.
 - If your bag had 14 blue pieces, about how many brown pieces would you predict using your trend line?
 - If there are 14 brown, how many blue would you predict?
3. Try comparing Yellow and Green. Make a scatter plot and draw a trend line.
4. Pick one other pair of colors to compare.

Accuracy (only)	Total
a) 2 b) 2 c) 2	6

6. *Math Concepts:* List at least **two similarities** and at least **two differences** between each pair of graph types:

- a. Bar graph and Stem-and-Leaf graph
- b. Bar graph and Histogram
- c. Stem-and-Leaf graph and Histogram



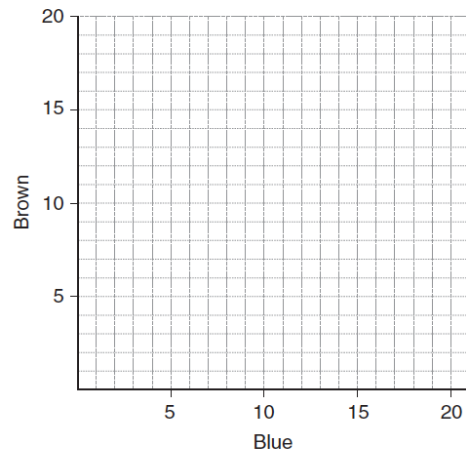
JUST FOR FUN

M&M'S®

	Bag Number																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Red	9	12	5	10	9	11	11	11	11	14	10	14	12	8	11	11	12	5	10	18	14	13	11	9
Yellow	16	13	16	17	17	8	14	19	13	15	19	12	20	15	14	18	18	16	24	13	10	17	17	9
Blue	12	7	11	11	11	8	11	8	7	11	11	7	7	12	8	11	11	9	5	9	15	8	12	4
Orange	5	12	9	9	9	5	8	5	9	6	9	11	6	9	8	11	5	8	8	7	7	10	5	6
Green	6	5	5	6	9	10	6	7	8	2	2	4	10	7	9	2	8	5	4	5	6	4	9	16
Brown	8	6	9	5	1	12	5	5	8	8	3	10	5	5	7	5	2	12	10	5	5	3	3	11
Totals	56	55	55	58	56	54	55	55	56	56	54	58	60	56	57	58	56	55	61	57	57	55	57	55

The table above lists the color distributions in 24 bags of M&M's milk chocolate candies (net wt. 1.69 oz.).

- *1. The total number of pieces of candy varies little from bag to bag, but some color combinations vary greatly. As the number of one color changes in a bag, does it affect the number of any other color? For example, if the number of brown increases in a bag, does it affect the number of any other particular color? At the right is a grid for a scatter plot comparison for the two colors, blue and brown. Each bag determines a point on the grid. For example, on the grid point (12, 8) represents 12 blue and 8 brown from bag 1 and (7, 6) represents 7 blue and 6 brown from bag 2. Plot all blue/brown pairs on the grid. Draw a trend line to see if there is any relationship. (Note: If the number of brown increases as the number of blue increases, there is a positive relationship. If the number of brown decreases as the number of blue increases, there is a negative relationship. Or, there may be no relationship.)
- *2. Assume that you purchase the same size bag of candy as those in the table. If your bag had 14 blue pieces, about how many brown pieces would you predict using your



trend line? If there were 14 brown, how many blue would you predict?

- *3. Try comparing yellow and green. Make a scatter plot and draw the trend line.
- *4. Pick other pairs of colors to compare.