

Open your bag of Skittles. Record how many skittles you have of each color as well as how many total skittles you have.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Green | Orange | Purple | Red | Yellow | Total |
|  |  |  |  |  |  |

1) Write a ratio representing the number of green skittles to purple skittles. Be sure to simplify your ratio and write it three different ways.

2) Create two part-to-part ratios. Be sure to label your numbers.

3) Create two part-to-whole ratios. Be sure to label your numbers.

4) For each color, represent the fraction, decimal, and percent of the bag that is represented by that color.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Green | Orange | Purple | Red | Yellow |
| Fraction |  |  |  |  |  |
| Decimal |  |  |  |  |  |
| Percent |  |  |  |  |  |



5) Using colored pencils and your information from the table above, shade in the following box.

(For example, if 13% of your skittles are green, shade
13 out of the 100 boxes green)

You may now eat your Skittles!

Use the class data for the following problems.

6) Find the five number summary and mean for two colors.

Color 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Color 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| min: | Q3: | min: | Q3: |
| Q1: | max: | Q1: | max: |
| med: |  | med: |  |

7) Create a dot plot for two different colors. Then, describe the shape and determine what the best measure of center and spread would be.

Color 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Shape:

Measure of Center: Mean or Median *(circle one)*

Measure of Spread: MAD or IQR *(circle one)*

Color 4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Shape:

Measure of Center: Mean or Median *(circle one)*

Measure of Spread: MAD or IQR *(circle one)*

8) Create a box plot for the last color.

Color 5: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



9) Create a histogram to represent the total # of skittles for everyone in the class. Begin with 40 and use intervals of 7. (Hint: make a table first and count on your fingers to help you with the intervals) Create your histogram using one of the templates on the last page.



10) Create a bar graph representing the number of skittles for a single color for everyone in the class. You may pick what number you begin with and the interval that you use, but you must have at least 5 intervals. Create your histogram using one of the templates on the last page.



11) Create a two way frequency table using the class information about gender and favorite flavor of skittles.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  | Total |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |

Then, create a relative frequency table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  | Total |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |

a) What is the probability that a student surveyed is male?

b) What percent of students chose red as their favorite flavor?

c) What flavor is the favorite in your class? The least favorite?

d) What percent of boys chose green as their favorite?

e) Given that a student is female, what percent chose yellow as their favorite?

f) How many boys chose orange as their favorite?



