

Math 1 – Chapter 7 Review

[You are welcome to use the [One Quantitative Variable Statistics Applet](https://srhsmath.yolasite.com/Math-1.php) at <https://srhsmath.yolasite.com/Math-1.php>]

1. For the given data set [20, 15, 36, 49, 17, 17, 33, 24, 37, 10] find the...

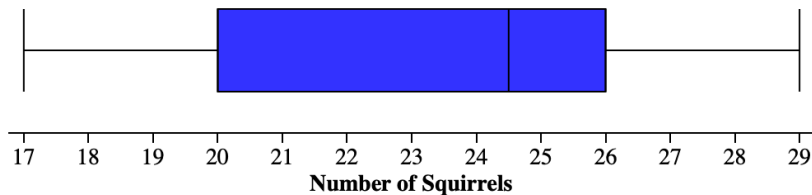
- a) Mean: 25.8
- b) Median: 22
- c) Mode: 17
- d) Standard Deviation: 12.372
- e) IQR: 19

2. Find the 5-number summary for the given data for the number of squirrels found on the SRHS campus each month: [25, 25, 26, 29, 17, 17, 23, 24, 27, 20].

[17, 20, 24.5, 26, 29]

3. Draw a box-and-whisker plot for the given data for the number of squirrels found on the SRHS campus each month: [25, 25, 26, 29, 17, 17, 23, 24, 27, 20].

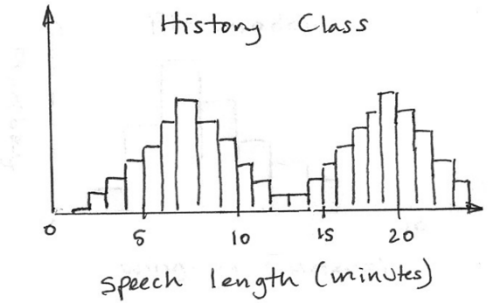
Squirrels at SRHS



- 4.
- a. For a distribution that is **skewed**, which measure of **center** should you use ? **Median**
 - b. For a distribution that is **skewed**, which measure of **spread** should you use ? **Range or IQR**
 - c. For a distribution that is **symmetric**, which measure of **center** should you use ? **Mean**
 - d. For a distribution that is **symmetric**, which measure of **spread** should you use ? **Standard Deviation**

5. Describe the distribution:

- **Shape:** The distribution is approximately symmetric with two peaks, centered at about 8 and 19.
- **Center:** The mean is approximately 13.
- **Spread:** I would calculate the standard deviation if I had the data, but I don't, I can say that the data ranges from 1 to 24.
- **Outliers:** None.



6. Complete the table about animals and their snack preferences:

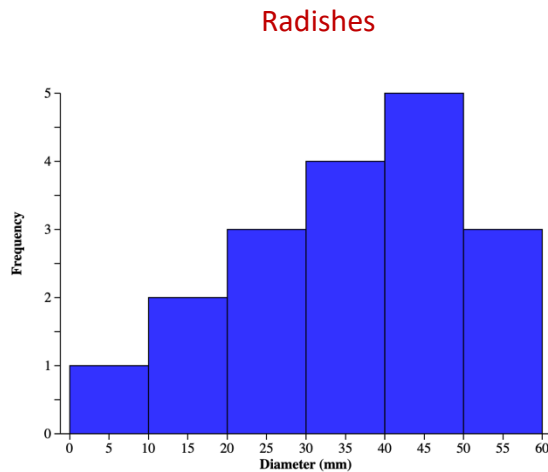
	M&Ms	Skittles	Smarties	Total
Sheep	41	15	12	68
Goat	6	17	87	110
Total	47	32	99	178

7. Answer the following questions about how some SRHS students get to school

	9 th grade	10 th grade	11 th grade	12 th grade	Total
Bus	13	15	8	6	42
Car	24	23	32	35	114
Walk	27	33	28	23	111
Total	64	71	68	64	267

- What percent of surveyed students use a car to get to school ? **43%**
- What percent of students are in 12th grade ? **24%**
- What percent of 12th graders use a car to get to school ? **55%**
- What percent of those who use a car to get to school are in the 12th grade ? **31%**

7. Construct a histogram to display data on Radish diameter (in mm)
[32, 33, 16, 4, 57, 40, 28, 54, 17, 31, 22, 58, 29, 43, 41, 45, 34, 44]



9. Solve the equation: $5(2x - 7) = 6x + 1$ [Show your work]

$$x = 9$$

10. Solve the equation: $|d| = 37$ $d = \pm 37$

11. The population of wombats at SRHS was 12 in 2000 and has increased by 2% each year.

a. Write a function to model this situation. $y = 12(1.02)^x$

b. Use your model to predict how many seagulls are at SRHS in 2021 **About 18**

12. Write an equation of the line through the points $(7, -8)$ and $(28, 6)$ [Show your work]

$$y + 8 = \frac{2}{3}(x - 7) \text{ or } y - 6 = \frac{2}{3}(x - 28)$$

13. Evaluate the function $f(x) = 11x - 4$ for $x = 6$

$$f(6) = 62$$