## Statistics review

Integrated Math 1B

Find the mode, median and mean for each data set

1. Test Scores
$\begin{array}{lllllllll}40 & 42 & 45 & 47 & 47 & 48 & 49 & 51 & 53\end{array}$
2. Number of words in book titles
$\begin{array}{lllllllll}1 & 2 & 2 & 2 & 3 & 3 & 3 & 4 & 6\end{array}$
3. Draw a dot plot and bar graph for the following data set

| Senator | Age | Senator | Age | Senator | Age | Senator | Age |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| John Walsh | 53 | Mike Johanns | 58 | Elizabeth Warren | 63 | Barbara Mikulski | 50 |
| Pat Toomey | 49 | David Vitter | 43 | Rand Paul | 47 | Jay Rockefeller | 47 |
| Saxby Chambliss | 59 | Jeff Sessions | 50 | Heidi Heitkamp | 57 | Marco Rubio | 39 |
| Kirsten Gillibrand | 42 | Lindsey Graham | 47 | Mike Lee | 39 | Cory Booker | 44 |

Draw a histogram for the following data sets.
4. Shoe Size

$$
\begin{array}{lllllllllllllllll}
10 & 7.5 & 8.5 & 8 & 10 & 7 & 9.5 & 6 & 8.5 & 9.5 & 9.5 & 6.5 & 11 & 8.5 & 5 & 6 & 8
\end{array}
$$

5. 

| Campers at National Parks |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Park | Tent <br> Campers | Park | Tent <br> Campers | Park | Tent <br> Campers |  |
| Guadalupe <br> Mountains | 7,814 | Wind Cave | 5,574 | Mojave | 587 |  |
| Katmai | 2,751 | Obed W\&SR | 1,034 | Chickasaw | 23,985 |  |
| Death Valley | 51,268 | Blue Ridge <br> Parkway | 39,824 | Rocky <br> Mountain | 75,807 |  |
| Cumberland <br> Island | 12,088 | Biscayne | 2,326 | Gauley River | 2,414 |  |
| Glen Canyon | 4,430 | Hot Springs | 4,068 | Shenandoah | 86,176 |  |
| Buffalo River | 19,084 |  |  |  |  |  |

## Construct a two-way frequency table for the following data set.

6. After a series of matches between a school's teams and their rivals, the school secretary analyzed the relationship of the number of wins and matches played. The results are summarized in a two-way table below.

| Sport | Boys Wins | Girls Wins | Total Wins |
| :--- | :---: | :---: | :--- |
| Volleyball | 23 | 18 |  |
| Cricket | 40 | 10 |  |
| Soccer | 15 | 25 |  |
| Total |  |  |  |

a) How many total wins did the school's Volleyball teams register?
b) How many more wins did the boys' teams have than the girls' teams?
7. Heather (a hairdresser) is making a record of all the customers she has had in the last month.
a. Design and label a table that will show the number of male and female customers who are blond or brunette

|  |  |  | Total |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
| Total |  |  |  |

b. In one month she has 40 blond females and only 5 blond males. Put these values in the table.
c. How many blond customers does she have in total that month?
d. She has 100 total customers and a total of 20 male customers during the same month. Use this information to finish filling in your table.

Construct a scatter plot. State if there appears to be a positive, negative or no correlation. When there is a correlation, identify the relationship as linear or nonlinear. If there is a linear correlation, then draw the line of best fit.
8.

| $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{X}$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 0.1 | 1,700 | 0.4 | 2,500 | 0.6 | 2,400 |
| 0.2 | 5,000 | 0.5 | 4,600 | 0.6 | 3,100 |
| 0.2 | 6,800 | 0.6 | 500 | 0.7 | 7,500 |
|  |  |  |  | 0.9 | 5,600 |


9.

| $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{X}$ | $\mathbf{Y}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 20 | 0.5 | 20 | 0.5 | 30 | 0.5 |
| 40 | 0.4 | 50 | 0.3 | 70 | 0.3 |
| 80 | 0.1 | 90 | 0.2 | 100 | 0.1 |
| 100 | 0.1 |  |  |  |  |



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