

Lesson 9-3

Frequency Tables and Dot Plots

<p>Lesson Objective</p> <p>To analyze a set of data by finding the range and by making frequency tables and dot plots</p>	<p>Common Core Standard</p> <p>Statistics and Probability: 6.SP.4</p>
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Vocabulary

A frequency table is **a table that lists each item in a data set with the number of times the item occurs.**

A dot plot **a graph that shows the shape of the data by stacking dots above each data value on a number line.**

The range of a data set is **the difference between the least and greatest values.**

Example

- 1 Frequency Table** The favorite lunch choices of ten students are: pizza, pizza, chicken, hamburger, chicken, pizza, chicken, pizza, pizza, pizza. Organize the data in a frequency table. Find the mode.

Favorite Lunch		
Lunch	Tally	Freq.
hamburger		1
pizza		6
chicken		3

Make a tally mark for each lunch item chosen.

The number of tally marks in each row is the **frequency**.

Since the most students selected **pizza** as their favorite lunch item, the mode is **pizza**.

Quick Check

- 1.** The first initials of the names of 15 students are listed below.

A J B K L C K D L S T D V P L

Organize the data in a frequency table. Find the mode.

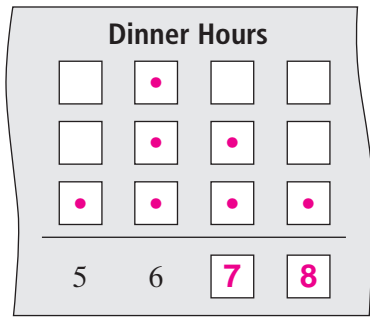
Initial	A	B	C	D	J	K	L	P	S	T	V
Tally											
Frequency	1	1	1	2	1	2	3	1	1	1	1

The mode is **L**.

Examples

2 Using a Dot Plot Make a dot plot to display the dinner hour for seven families:

5:00 7:00 6:00 6:00 8:00 7:00 6:00



← Each • represents one family.

← The scale of a graph includes all of the data values.
The scale is **5** to **8** in this line plot.

3 Finding the Range Find the range of the data in Example 2.

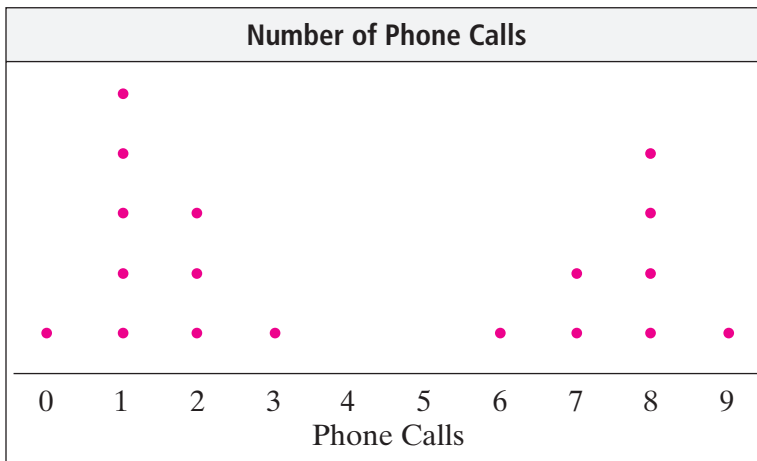
8 - 5 = **3** ← Subtract the least from the greatest value.

The range of dinner times is **3** hours.

Quick Check

2. Use a dot plot to interpret the number of sales calls made each hour:

2, 3, 0, 7, 1, 1, 9, 8, 2, 8, 1, 2, 8, 7, 1, 8, 6, 1.



3. The numbers of pottery items made by students are 36, 21, 9, 34, 36, 10, 4, 35, 30, 7, 5, and 10. Find the range of the data.

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