## Lesson 4: The Shape of Data Distributions

* Let’s explore various shapes of data.

### 4.1: Math Talk: Number Line Distance

Mentally, find the distance between the two values on a number line.

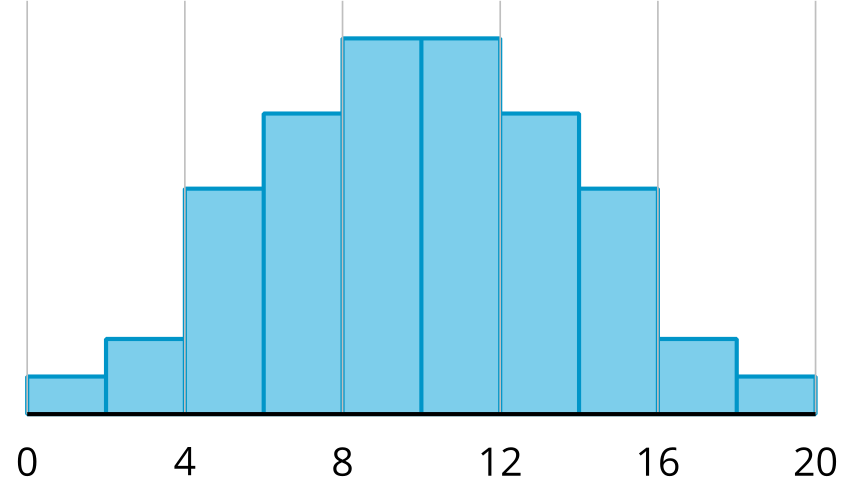
* 70 and 62
* 70 and 70
* 70 and 79
* 70 and 97

### 4.2: Suspicious Descriptions

For each picture and description:

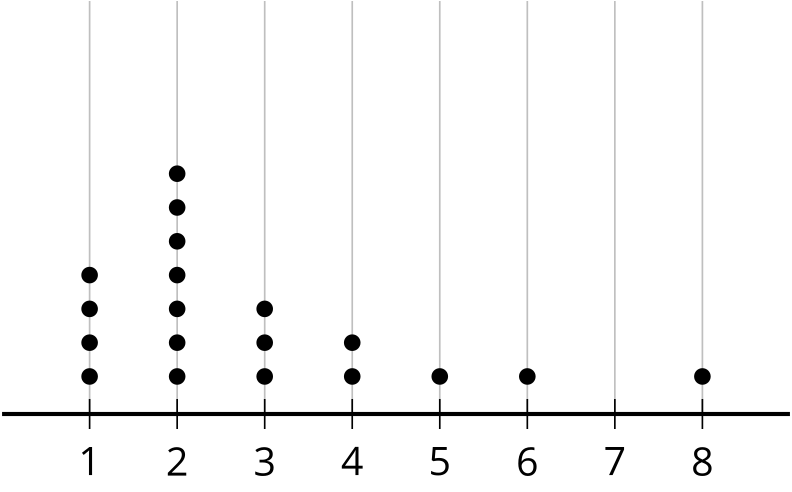
* Do you agree or disagree with the description?
* If you agree, explain how you know it is correct.
* If you disagree, explain the error and write the correct description. Explain how you know it is correct.

Bell-shaped since there is a central peak for symmetric data that is less frequent on the ends.



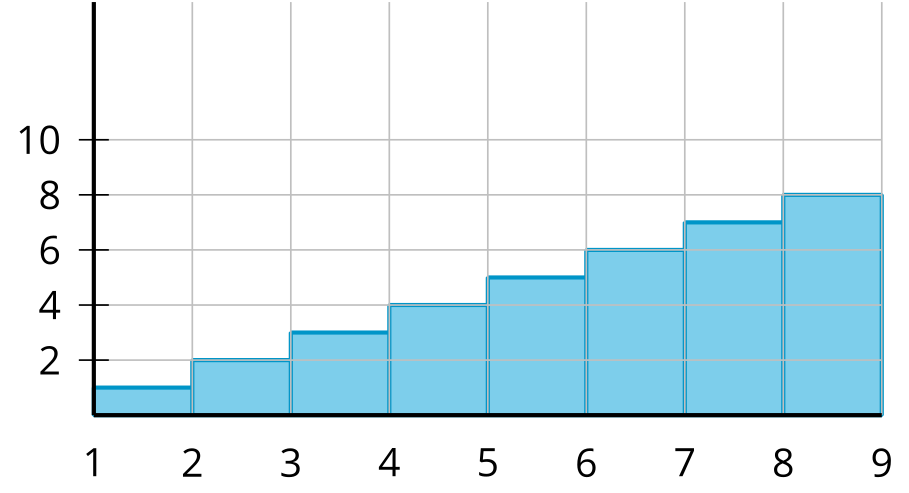
​​​​​​

Symmetric because if the distribution was cut in half, both sides would be the same shape.



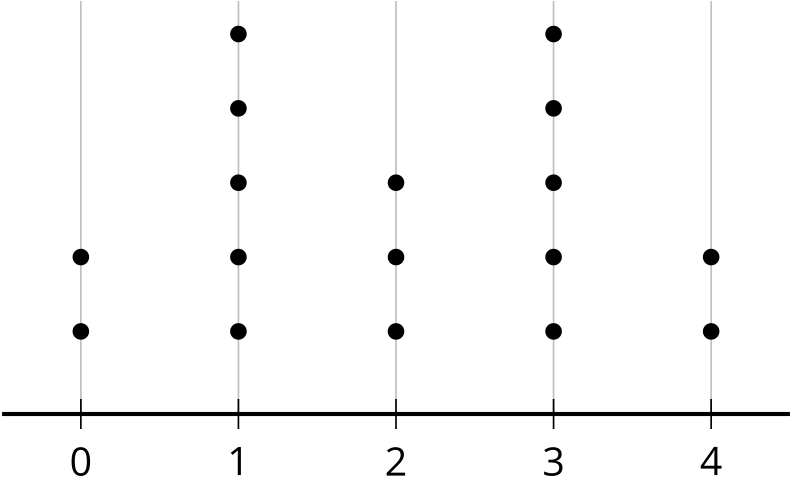
​​​​​​

Uniform because there seems to be the same amount of data points across the entire distribution.



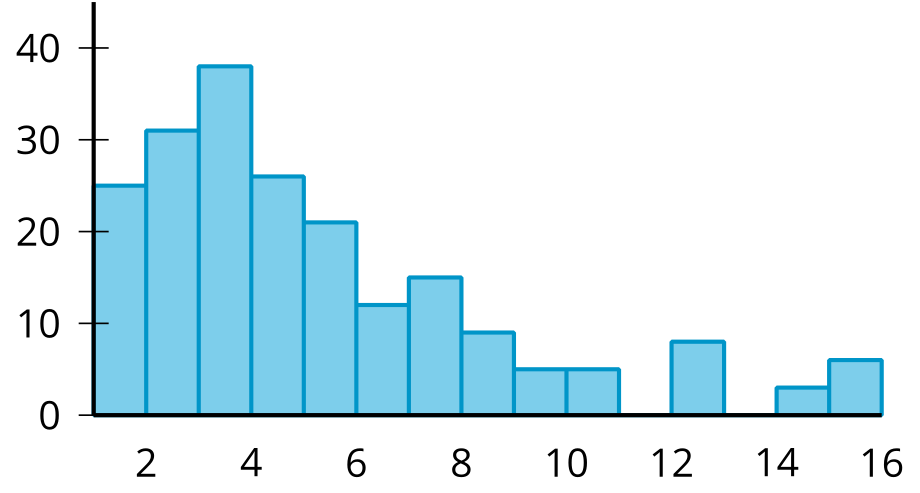
​​​​​​

Symmetric because if the distribution was cut in half, both sides would be the same shape.



​​​​​​

Skewed left since most of the data is on the left side of the distribution.

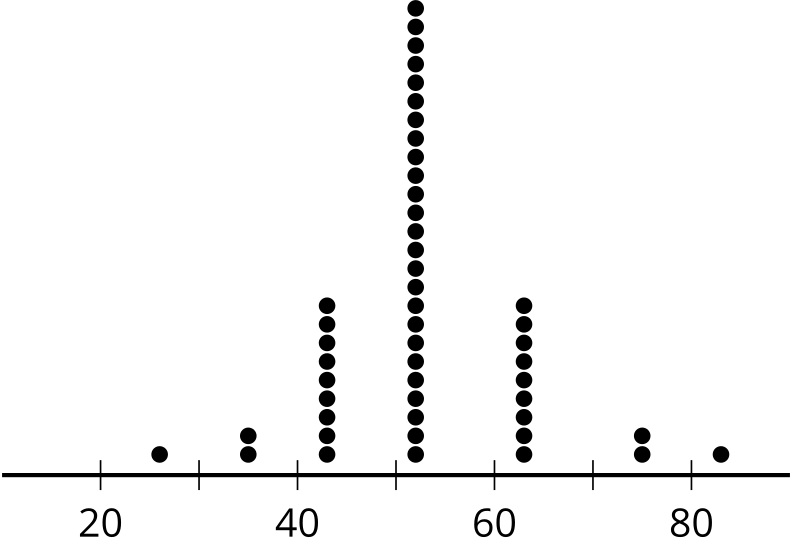


​​​​​​

### 4.3: Whipping Data into Shape

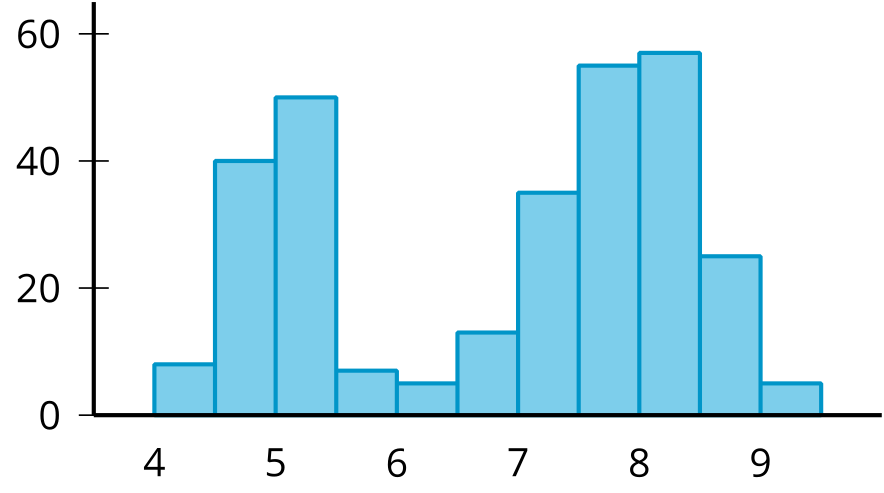
Describe the shape of each distribution using the terms approximately, symmetric, bell-shaped, skewed left, skewed right, uniform, or bimodal. Estimate the center of each distribution.

A

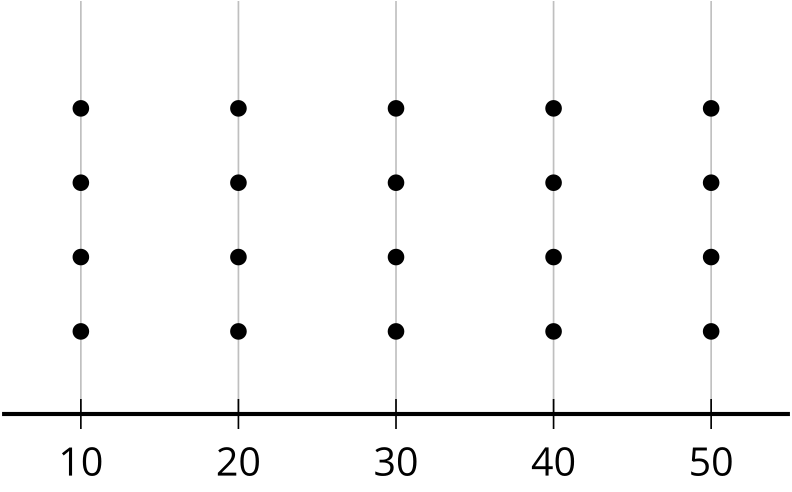


​​

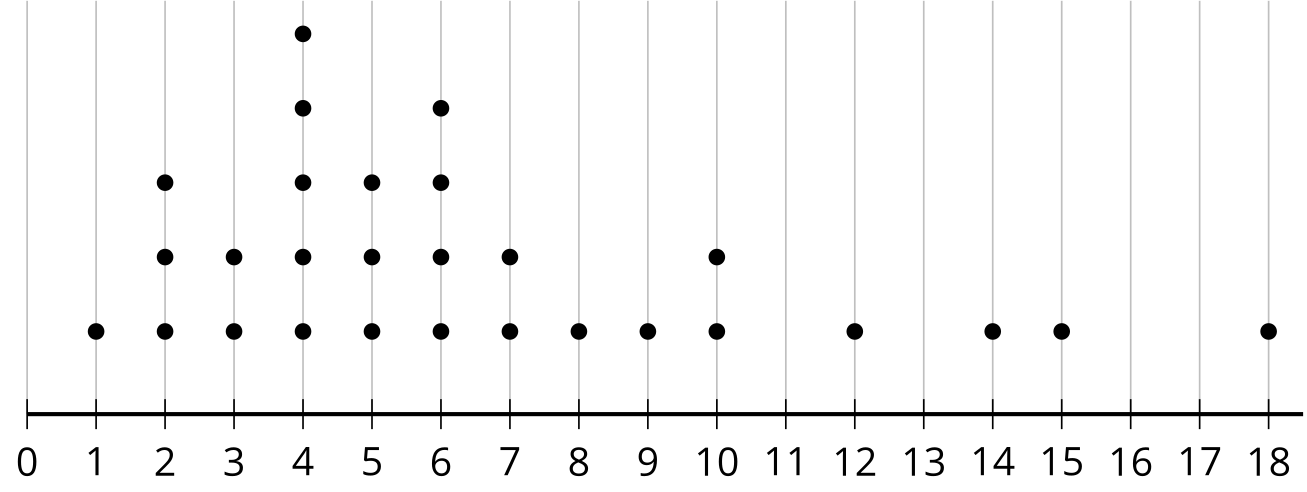
B



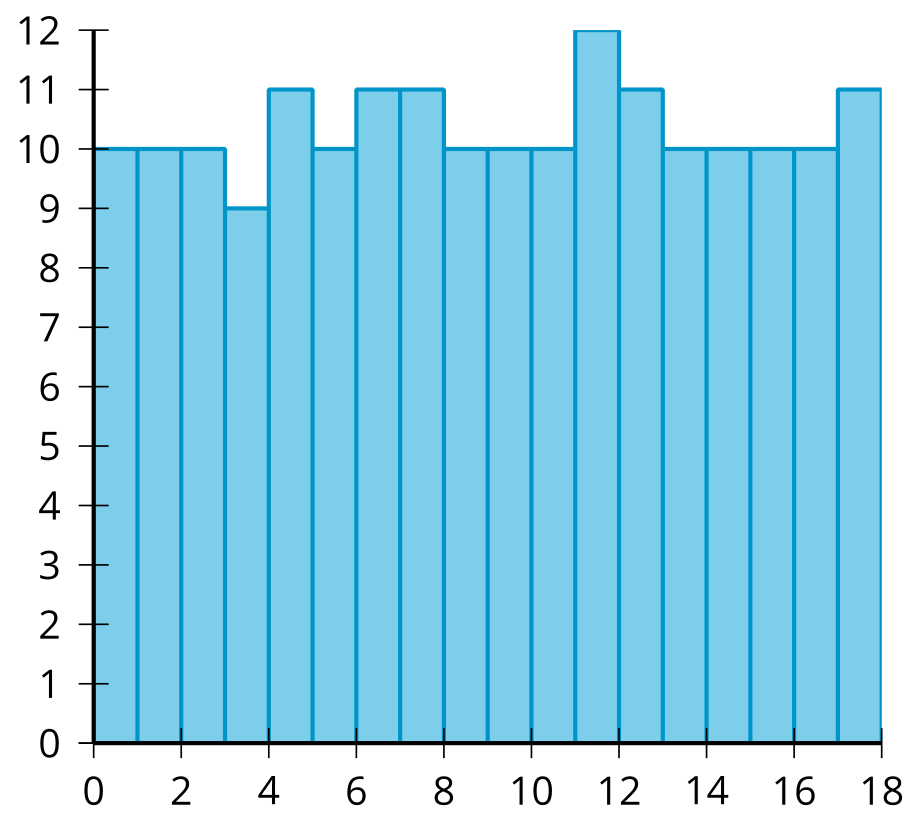
C



D

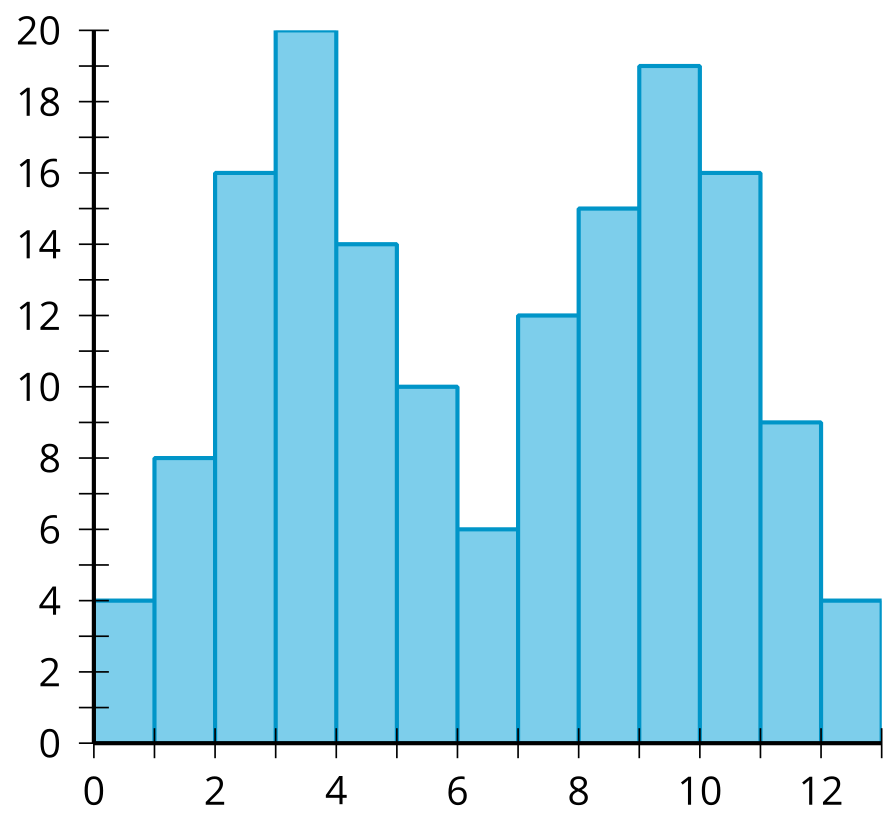


E



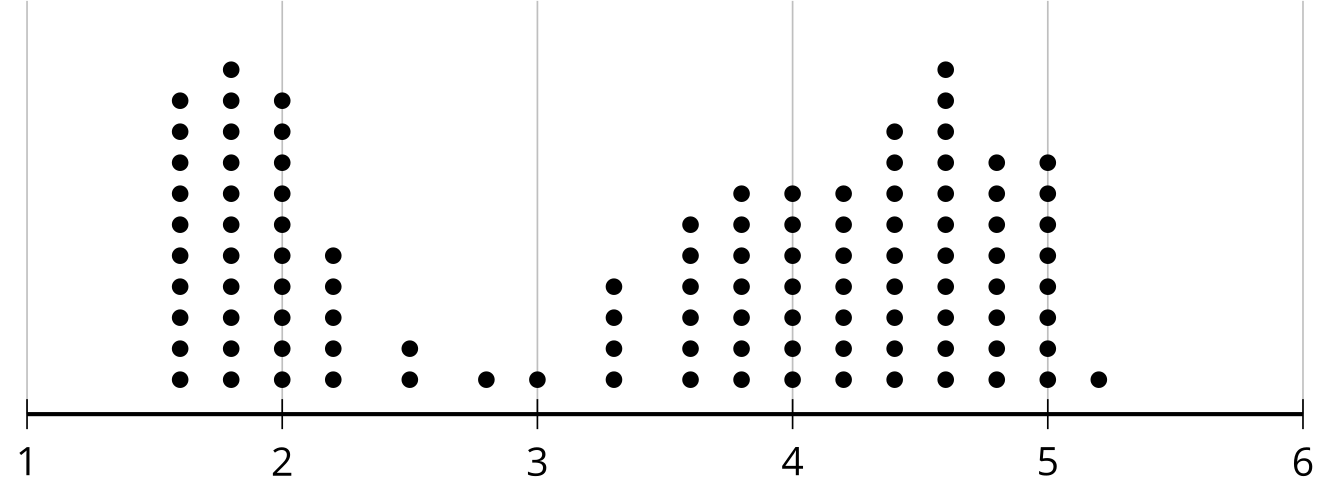
​​​​​

F

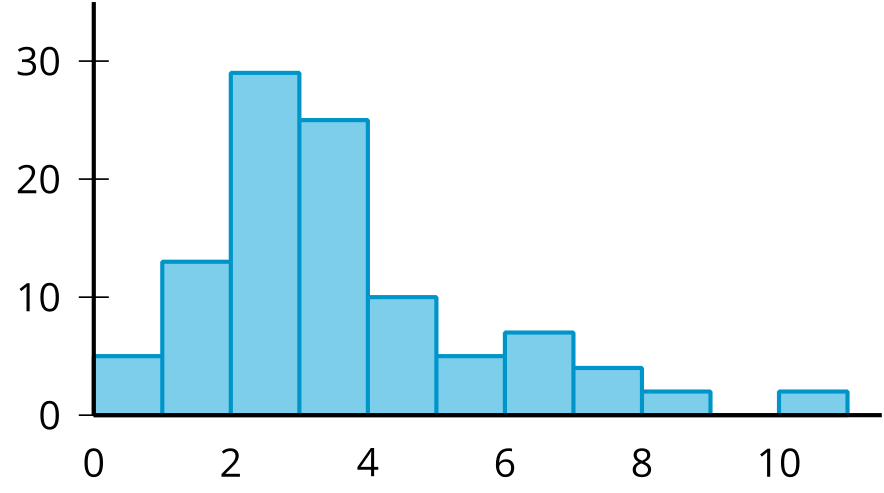


​​​​​​

G



H





© CC BY 2019 by Illustrative Mathematics®