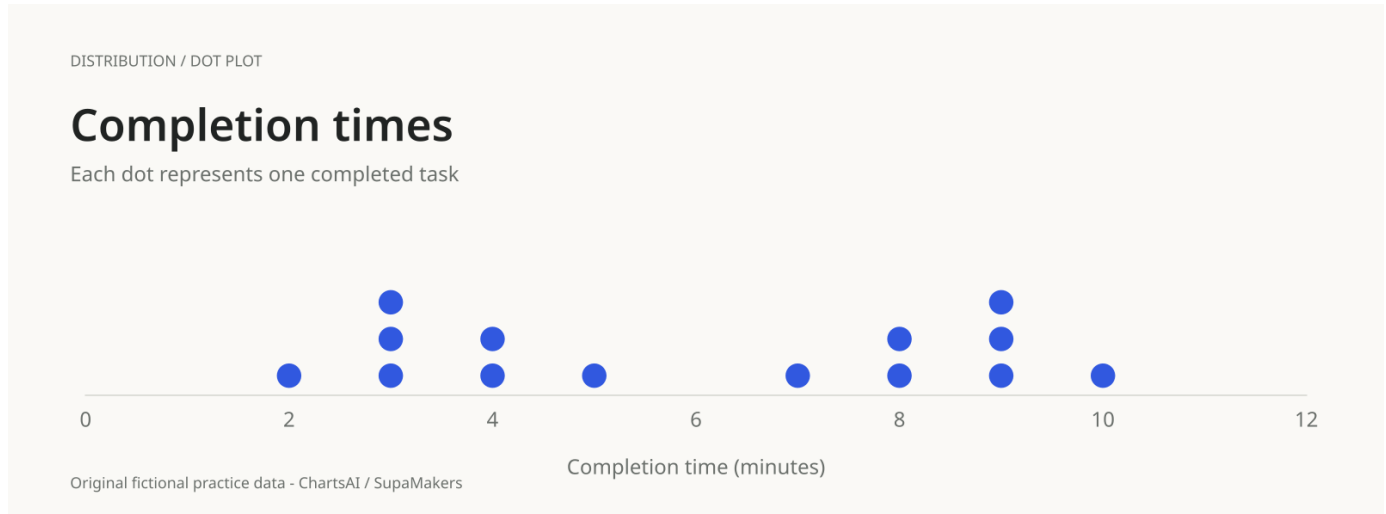


Read a dot plot

Name: _____ Date: _____

Count each dot once. The numbers on the horizontal axis are minutes, not frequencies.



Completion time (minutes): 2, 3, 3, 3, 4, 4, 5, 7, 8, 8, 9, 9, 9, 10. Fictional data.

1. How many completed tasks are shown? Explain how you counted.

2. Which completion times occur most often? Give each frequency.

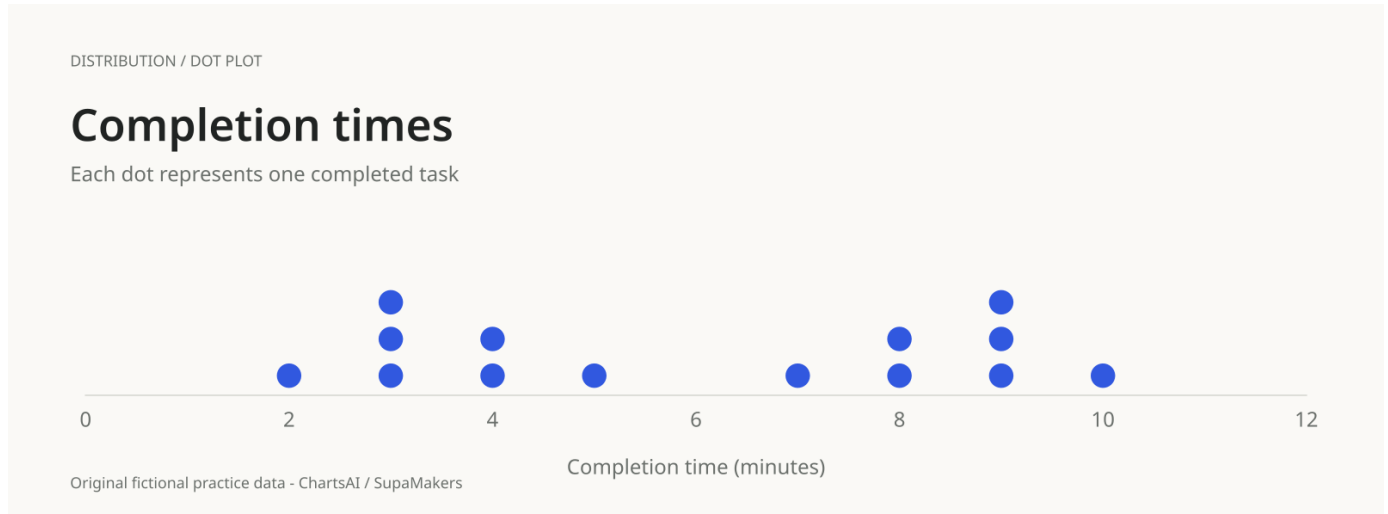
3. What is the range? Include the unit.

4. Describe the shape. Does it prove there are two different groups of people?

What can an average hide?

Name: _____ Date: _____

Use the same completion times as lesson 1. Show your calculation before interpreting it.



Completion time (minutes): 2, 3, 3, 3, 4, 4, 5, 7, 8, 8, 9, 9, 9, 10. Fictional data.

1. Calculate the mean completion time. Show the total and divisor.

2. Calculate the median. Which two ordered positions do you use?

3. Did anyone take exactly the mean time? What does this tell you about averages?

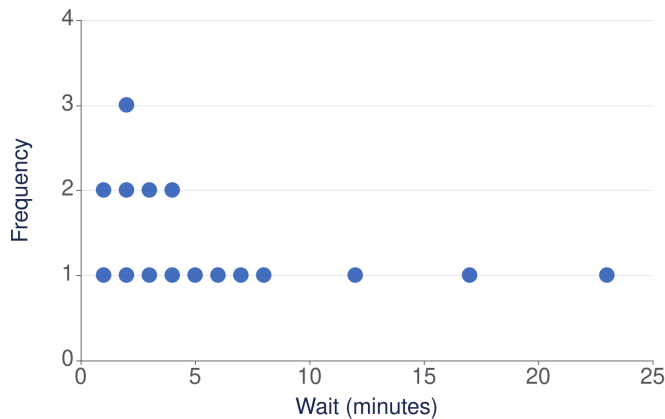
4. Write one sentence that communicates more than the mean alone.

From dots to histogram bins

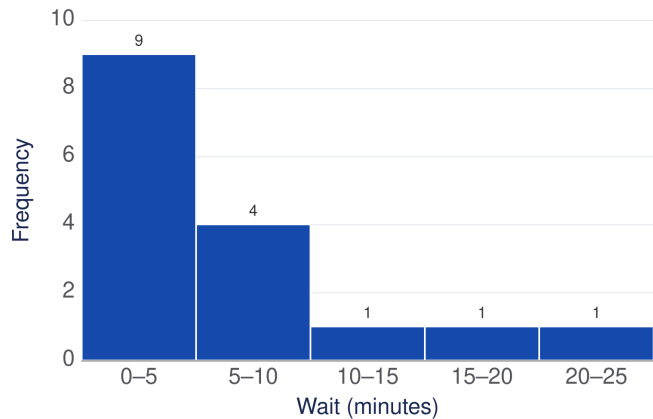
Name: _____ Date: _____

New dataset: waiting times. Both plots use all the same waits. Bins start at 0 and have width 5 minutes; include the left edge, exclude the right edge, except the last bin includes its right edge.

Individual waiting times



Waiting times grouped into intervals



Wait (minutes): 1, 1, 2, 2, 3, 3, 4, 4, 5, 6, 7, 8, 12, 17, 23. Fictional data.

1. How many observations are in each chart? Did grouping add or remove any?

2. How many waits are from 0 up to (but not including) 5 minutes? How many are exactly 2 minutes?

3. Which interval contains a wait of exactly 5 minutes?

4. Could the histogram alone recover every exact wait? Explain.