Section 2.3: Histograms

Interpreting and Creating a Histogram

What is a histogram?

- A bar graph that is used to represent ***continuous*** (rather than discrete) data.
- As a result, the _____ of each bar represents a _____ of values not a single specific value, and there are _____ between the bars.

Interpreting a histogram:

The _____ of the histogram provides information about the data shown in the histogram.

The _____ on the _____ axis tells us what the variable is that is being divided into smaller intervals.

The _____ on the _____ axis is always (The number of …)

The _____ of all of the _____ in a histogram are usually the same, but there can be some deviation from this rule.

The _____ of one bar is the _____ of the next bar so there are no gaps between the bars.

The _____ of each _____ will indicate how many times the data that was collected fit into each of these intervals.

Example: Interpreting a Histogram

The _____ tells us that:

- This data was collected from

- This data pertains to the number of

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The _____ scale shows how the 24-hour time period has been broken down into smaller time intervals.

The _____ scale is counting the number of airplanes that are scheduled to arrive.

The _____ of the bars tells us _____ are scheduled to arrive during each of the smaller time intervals.

Each time interval had at least _____ arrivals (_____ bars) but never more than _____ arrivals (_____ bars).

How many arrivals are scheduled between 10:00 a.m. and 11:00 a.m. ?

How many arrivals are scheduled between 12:00 noon and 2:00 p.m. ?

Which 3-hour period is busier:

- From 10:00 a.m. to 1:00 p.m.
  or
- From 2:00 p.m. to 5:00 p.m.

How many airplanes are scheduled to arrive between 4:00 a.m. and 5:00 a.m. ?

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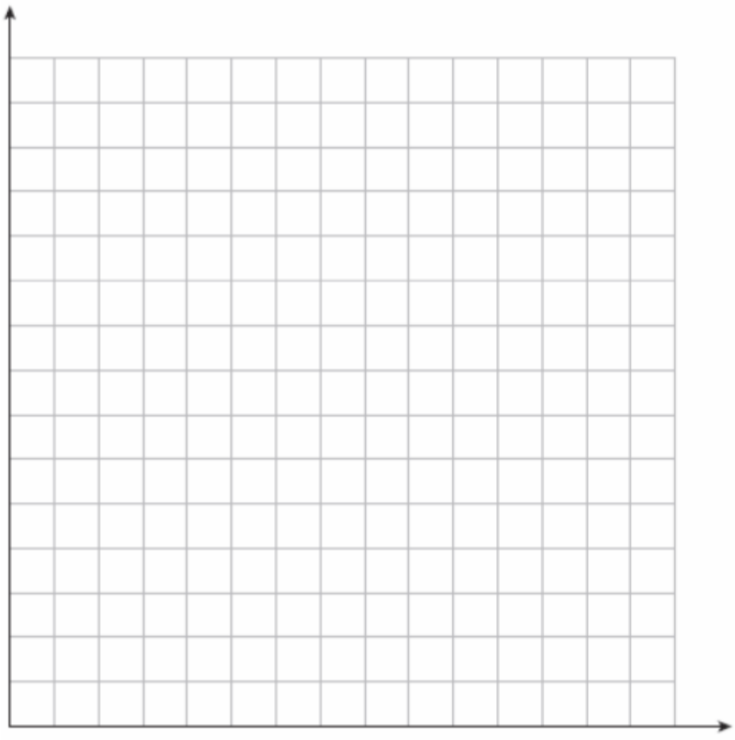
Example: Creating a Histogram

Adele is a college student who is doing a research project for one of her courses. She is interviewing people across Canada to determine the average number of hours of television they watch per week. Her results have been summarized in the table below:

TELEVISION VIEWING	
Time (hours)	**Number of People**
Less than 5 hours	254
More than 5 hours but less than 10 hours	875
More than 10 hours but less than 15 hours	684
More than 15 hours but less than 20 hours	912
More than 20 hours but less than 25 hours	345
More than 25 hours but less than 30 hours	123
More than 30 hours	62

Display this data in a histogram.



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How many people watch between 10 and 15 hours of television a week?

How many people watch less than 15 hours of television a week?

How many people watch 15 hours or more of television a week?

How many people watch more than 35 or more hours of television a week?

Check your understanding:
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