

Exercise walk-through

1.5

Representing a Quantitative Variable with Graphs

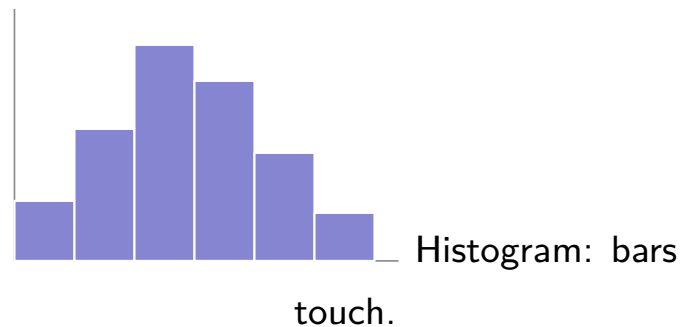
AP Statistics

Displaying quantitative data

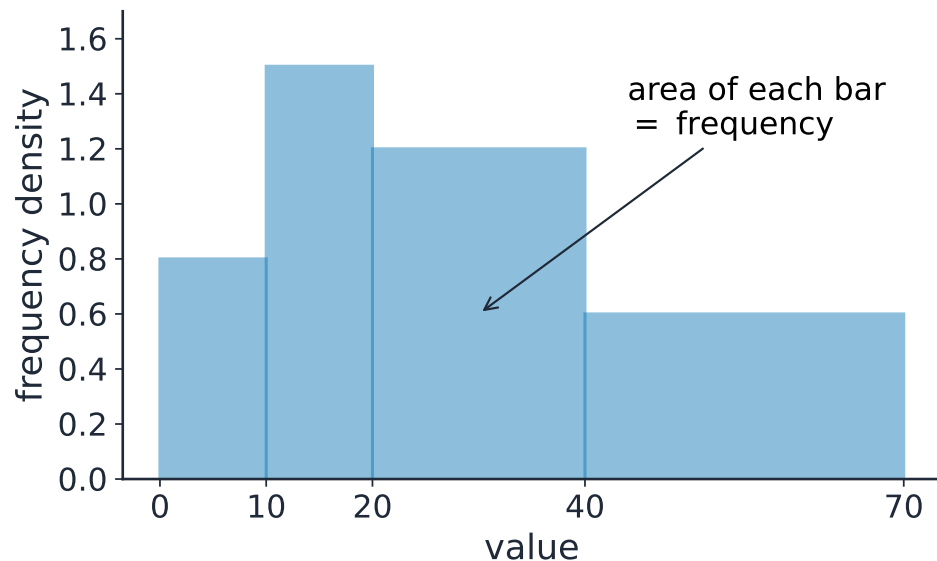
Show *where numbers fall on a scale*:

- a **dotplot** or **stem-and-leaf** keeps every value
- a **histogram** groups values into **bins**
- an **ogive** reads off **percentiles**

Histogram bars **touch** (a number scale) – the visual difference from a bar chart.



Representing a Quantitative Variable with Graphs



On a histogram with unequal class widths the bar area is the frequency

Exercises 2.1-2.3

2.1 Name two graphs for a quantitative variable.

[2]

2.2 State what the bins of a histogram are.

[1]

2.3 State what an ogive is used to estimate.

[1]

Exercises 2.1-2.3

2.1 Name two graphs for a quantitative variable. [2]

2.1

- any two of: histogram, dotplot, stem-and-leaf plot
-

2.2 State what the bins of a histogram are. [1]

2.2

- the intervals into which the values are grouped
-

2.3 State what an ogive is used to estimate. [1]

2.3

- percentiles

Exercises 3.1-3.2

3.1 A graph for a quantitative variable is a

[1]

☐

A bar chart

B pie chart

C histogram

D two-way table

☐

3.2 A cumulative relative frequency graph (ogive) is used to estimate

[1]

A the mode

B percentiles

C categories

D colours

Exercises 3.1-3.2

3.1 A graph for a quantitative variable is a

[1]

☐

A bar chart

B pie chart

C histogram

D two-way table

3.1 C

- histogram.

3.2 A cumulative relative frequency graph (ogive) is used to estimate

[1]

☐

A the mode

B percentiles

C categories

D colours

3.2 B

- percentiles.

Exercise 3.3 (a)

3.3 Data on exam marks is to be displayed.

(a) Name a suitable graph.

[1]

Exercise 3.3 (a)

3.3 Data on exam marks is to be displayed.

(a) Name a suitable graph.

[1]

(a)

- a histogram (or dotplot)

Exercise 3.3 (b)

3.3 Data on exam marks is to be displayed.

(b) State what using too few bins might hide.

[1]

Exercise 3.3 (b)

3.3 Data on exam marks is to be displayed.

(b) State what using too few bins might hide.

[1]

(b)

- the shape of the data

Exercise 3.3 (c)

3.3 Data on exam marks is to be displayed.

(c) Name the graph used to read percentiles.

[1]

Exercise 3.3 (c)

3.3 Data on exam marks is to be displayed.

(c) Name the graph used to read percentiles.

[1]

(c)

- an ogive (cumulative relative frequency graph)