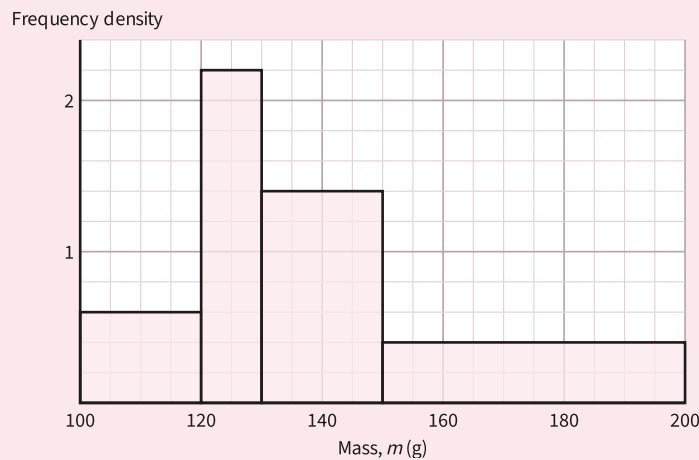


Histograms: which step breaks?

ANSWERS

Name _____

The histogram shows the masses of some apples. These questions follow it through the steps of estimating how many apples are between 125 g and 160 g, in order.



- 1 Up the frequency density axis of the histogram, what is one small square worth?

STEP 1: ONE SMALL SQUARE • FIX IT CARD 1

0.2

- 2 One small square up is 0.2. How tall is the third bar?

STEP 2: READ THE HEIGHT • FIX IT CARD 2

1.4

- 3 One small square across is 5 g. What is the class width of the third bar?

STEP 3: CLASS WIDTH • FIX IT CARD 3

20 g

- 4 The third bar, $130 < m \leq 150$, is 1.4 tall and 20 wide. How many apples are in this class?

STEP 4: FREQUENCY IS THE AREA • FIX IT CARD 4

28

- 5 The classes are $100 < m \leq 120$, $120 < m \leq 130$, $130 < m \leq 150$ and $150 < m \leq 200$. Split the range 125 g to 160 g at the class boundaries. How wide is each piece?

STEP 5: SPLIT THE RANGE • FIX IT CARD 5

5, 20 and 10

- 6 The pieces are 125 to 130, 130 to 150 and 150 to 160, in bars with frequency density 2.2, 1.4 and 0.4. Estimate how many apples have a mass between 125 g and 160 g.

STEP 6: ESTIMATE FROM THE PIECES • FIX IT CARD 6

43

The first question wrong is the step that breaks. Give that student the card it names.

The Maths Habit