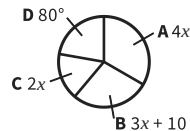


## 1 Pie charts

The angles of a pie chart are given in degrees.

- Find  $x$ .
- 27 more people are in A than in C. How many people are there in all?

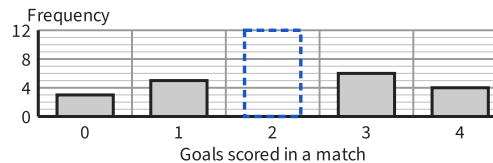


- $9x + 90 = 360, x = 30$
- $120^\circ - 60^\circ = 60^\circ$  is 27 people,  $27 \times 6 = 162$

## 2 Bar charts

The bar for 2 goals is missing. The mean is 2.1

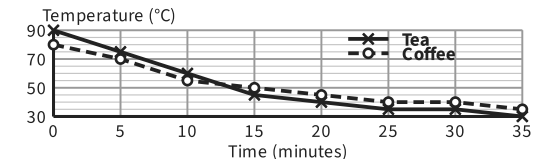
- Find the height of the missing bar.
- Find the median.



- $39 + 2f = 2.1(18 + f), f = 12$
- the 15th and 16th are 2

## 3 Line graphs

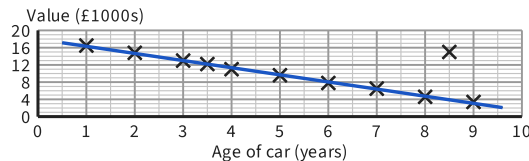
- Estimate when the drinks were equally hot.
- Which cooled faster in the first 10 minutes? By how much?



- about 12.5 minutes (11 to 14)
- tea 3, coffee 2.5 °C a minute: tea, by 0.5

## 4 Scatter graphs

- Draw a line of best fit without the outlier. Estimate the value at 6.5 years.
- Find its gradient. What does it mean?



- about £7200 (£6500 to £7800)
- $-1.7$  ( $-1.4$  to  $-1.8$ ): £1700 lost a year

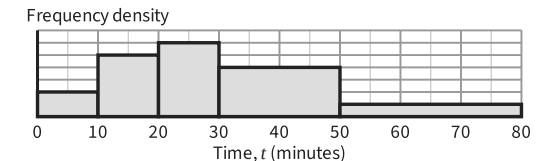
# Representing and interpreting data

## revision mat answers

## 5 Histograms

No scale on the axis. 18 people took 20 to 30 minutes.

- How many people are there altogether?
- Estimate how many took over 40 minutes.

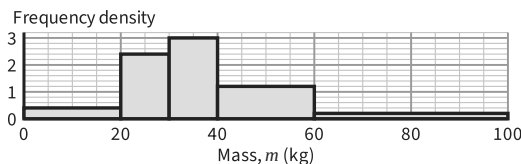


- 12 squares = 18, 48 squares = 72
- 14 squares  $\times 1.5 = 21$

## 6 Histograms

The masses of some parcels.

- Estimate the mean mass, to 1 decimal place.
- Estimate the percentage over 45 kg, to 1 decimal place.

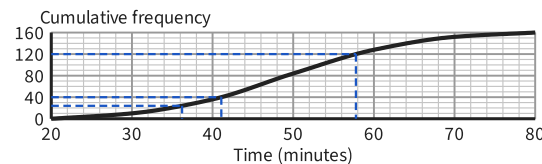


- $3570 \div 94 = 38.0$  kg
- $18 + 8 = 26, 26 \div 94 = 27.7\%$

## 7 Cumulative frequency

160 runners. The fastest 15% get a medal.

- Estimate the interquartile range.
- Estimate the slowest time that wins a medal.

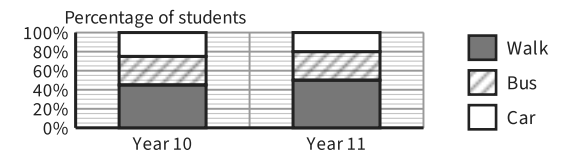


- $58 - 41 = 17$  min (15 to 19)
- the 24th: about 36 min (36 to 38)

## 8 Comparative and composite bar charts

Year 10 has 180 students and Year 11 has 150.

- Which year has more students who walk? Show why.
- How many more Year 10 than Year 11 come by car?



- 81 and 75 walk: Year 10
- $45 - 30 = 15$