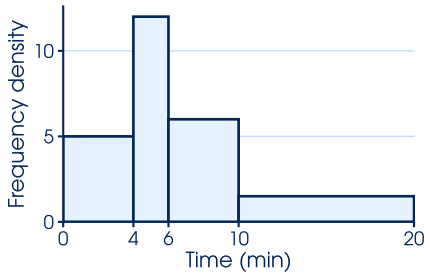
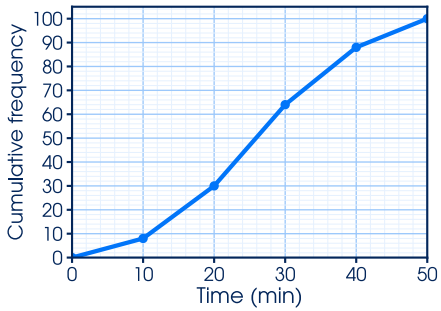
GCSE HIGHER · REVISION MAT 4

Cumulative frequency and histograms

1 Find the frequency of the class $6 < t \leq 10$.

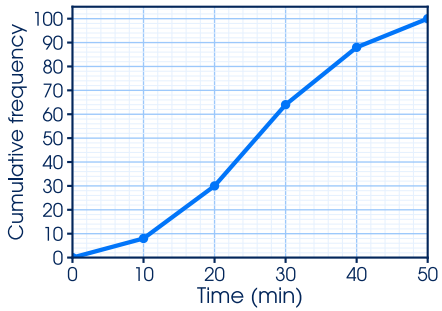


2 Estimate the median time.



3 Explain why the median from a cumulative frequency graph is only an estimate.

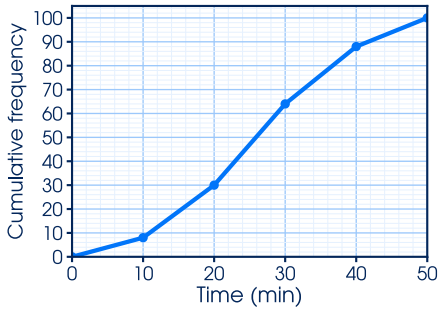
4 Estimate the interquartile range.



5 A class $0 < t \leq 4$ has frequency 20.

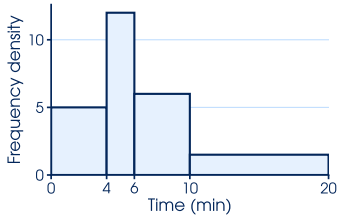
Show that its frequency density is 5.

6 Estimate the percentage taking less than 15 minutes.



7 Explain how to find the frequency of a class from a histogram.

8 Estimate the number of times between 5 and 12 minutes.



ANSWERS · REVISION MAT 4

Cumulative frequency and histograms

1 4×6

24

2 Read at 50

≈ 26 minutes

3 **The graph assumes values are spread evenly within each class.**

4 Q1 at 25 ≈ 18, Q3 at 75 ≈ 35

≈ 17 minutes

5 **$20 \div 4 = 5$**

6 Read at 15: about 19

About 19%

7 **Multiply the frequency density by the class width.**

8 5–6: 12

6–10: 24; 10–12: 3

≈ 39