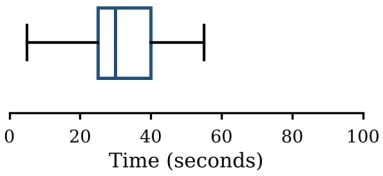
Day 23 **A Tier 10-a-day**

1 The box plot shows the times taken, in seconds, by the students in Class A to run 100 m.
(a) Write down the median and the interquartile range.
For Class B the median is 15 and the interquartile range is 20.
(b) Compare the distributions of the two classes.



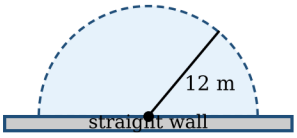
2 The exchange rate is £1 = CHF 1.10.
(Calculator)
A hotel room costs CHF 286 a night.
Work out the cost in pounds.

3 The table shows information about 25 households.
(a) Find the median.
(b) Work out the range.

Number of pets	0	1	2	3	4
Frequency	2	5	8	3	7

4 A roll of ribbon is $16\frac{1}{4}$ metres long. Pieces of $\frac{5}{8}$ metre are cut from it.
How many pieces can be cut?

5 A is the point $(-1, -5)$ and B is the point $(-2, 1)$.
(a) Find the midpoint of AB.

Day 23	A Tier 10-a-day
6 (a) Write $x^2 - 12x - 10$ in the form $(x + a)^2 + b$ (b) Write down the coordinates of the turning point of the curve $y = x^2 - 12x - 10$	
7 The price of a monthly gym fee increases by 20%. The new price is £360. Work out the price before the increase.	
8 A dog is tied by a rope of length 12 m to a point on a long straight wall. The dog can graze on any grass on one side of the wall. Work out the area it can graze. Give your answer in terms of π. The diagram is not drawn accurately. 	
9 Grace invests £15,000 in a savings account. (Calculator) Compound interest is paid at a fixed rate each year. After 2 years the investment is worth £19,837.50. Work out the annual rate of interest.	
10 Solve $\frac{6}{(x + 1)} + \frac{3}{(x + 5)} = 1$	