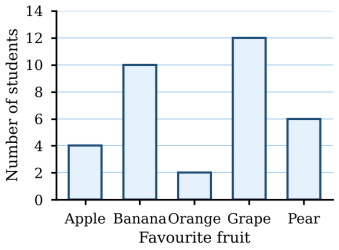
Day 101 **B Tier 10-a-day**

1 The bar chart shows some information.
(a) How many more were there for Pear than for Apple?
(b) Work out the total of all five bars.

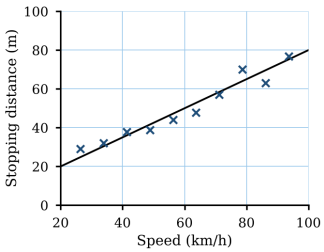


2 Write 3.2442
(a) correct to 2 decimal places,
(b) correct to 3 significant figures.

3 What is the order of rotational symmetry of a regular nonagon?

4 Solve $7p + 10 \geq -11$

5 The scatter graph shows information about speed and stopping distance.
A line of best fit is drawn.
(a) Describe the correlation.
(b) Use the line of best fit to estimate the stopping distance when speed is 44.



Day 101 **B Tier 10-a-day**

6 Ali says, "The value of $n^2 - 3n + 13$ is a prime number for every positive whole number n."
Show that Ali is wrong.

7 The table shows the times taken by some students to complete a task.
(a) Write down the modal class.
(b) Work out an estimate for the mean.

Time, t (minutes)	Frequency
$0 < t \leq 5$	10
$5 < t \leq 10$	7
$10 < t \leq 15$	12
$15 < t \leq 20$	5
$20 < t \leq 25$	2

8 A shop sells pens and pencils. All pens cost the same and all pencils cost the same.
3 pens and 2 pencils cost 365p.
4 pens and 2 pencils cost 480p.
Work out the cost of one pen and the cost of one pencil.

9 A fuel tank is $\frac{2}{5}$ full.
64 litres of fuel are added.
The fuel tank is now $\frac{2}{3}$ full.
Work out the capacity of the fuel tank.

10 A boat sails 13 km on a bearing of 270° from P to Q, then 6 km on a bearing of 000° to R.
(Calculator)
(a) Work out the distance PR.
(b) Work out the bearing of R from P.
Give your answers correct to 1 decimal place.

