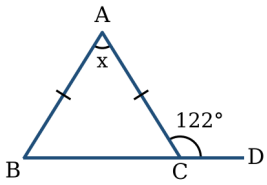
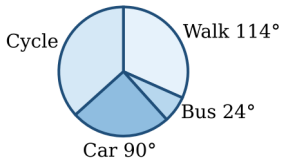
Day 320 **A Tier 10-a-day**

1 ABC is an isosceles triangle with AB = AC.
BCD is a straight line.
Angle ACD = 122°.
Work out the size of angle x.
The diagram is not drawn accurately.



2 The population of City A is 8×10^5.
The population of City B is 1.6×10^5.
How many times bigger is the population of City A than the population of City B?

3 The pie chart shows how some students travel to school.
19 students chose walk.
(a) Work out the angle for cycle.
(b) How many students chose cycle?



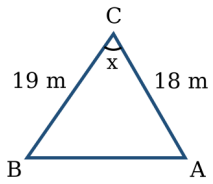
4 Work out $(5.6 \times 10^{-2}) + (8.5 \times 10^{-3})$
Give your answer in standard form.

5 The size of each angle of a quadrilateral is shown as an expression:
$(2x + 10)°$, $(2x - 15)°$, $(3x + 40)°$, $(2x - 35)°$
Work out the value of x.

Day 320 **A Tier 10-a-day**

6 Here are the first five terms of a quadratic sequence.
6, 20, 40, 66, 98
(a) Find an expression for the nth term.
(b) Work out the 15th term.

7 The area of triangle ABC is 155 m^2.
(Calculator)
Angle x is acute.
Work out the size of angle x. Give your answer to 1 decimal place.
The diagram is not drawn accurately.



8 y is inversely proportional to x.
When x = 25, y = 12.
(a) Find a formula for y in terms of x.
(b) Work out the value of y when x = 2.

9 The table gives information about 54 measurements.
A histogram is drawn using this information.
(a) Work out the missing frequency.
(b) Work out the height of the bar for the class $30 < h \leq 45$.

Height, h (cm)	Frequency
$0 < h \leq 5$	7
$5 < h \leq 20$	9
$20 < h \leq 30$	?
$30 < h \leq 45$	30

10 Make x the subject of $y = \frac{5x - 3}{-x - 3}$