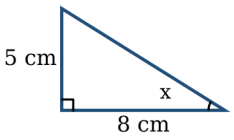
Day 312	A Tier 10-a-day
1 A gym charges a joining fee of £20 and then £20 each month. (a) Write a formula for the total cost, £C, after n months. (b) Omar pays £320 in total. Work out the number of months.	
2 £1 = €1.12. (a) Change £80 to euros. (b) Change €201.6 to pounds.	
3 Write the recurring decimal $0.\dot{7}\dot{4}$ as a fraction in its simplest form.	
4 Here are the first four terms of a sequence. 0, 2, 4, 6 (a) Find an expression for the nth term. (b) Find the first term in the sequence that is greater than 150.	
5 Isla buys a bike for £40 and sells it making a profit of 25%. Work out the selling price.	

Day 312 **A Tier 10-a-day**

6 A bag contains 4 red, 4 blue and 2 green counters.
Two counters are taken at random without replacement.
Work out the probability that exactly one of the two counters is red.

7 The graph of y = f(x) has a maximum point at (3, 3).
Write down the coordinates of the turning point of the graph of
(a) y = f(−x)
(b) y = f(x + 1)

8 Work out the size of angle x. (Calculator)
Give your answer to 1 decimal place.
The diagram is not drawn accurately.



9 Leah invests £6,500 in an investment bond. (Calculator)
The account pays compound interest at 2% per year.
Work out the value of the investment after 3 years.

10 The diagram shows a cuboid.
Work out the length of the diagonal AG. (Calculator)
Give your answer to 3 significant figures.
The diagram is not drawn accurately.

