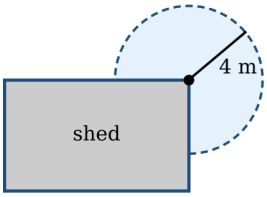
Day 157	A Tier 10-a-day
1 A horse is tied by a rope of length 4 m to the corner of a rectangular shed. The shed measures 10 m by 6 m. The horse can graze on any grass it can reach outside the shed. Work out the area it can graze. Give your answer in terms of π. The diagram is not drawn accurately. 	
2 Write 1350 as a product of prime factors, in index form.	
3 7 painters take 22 days to paint a hall. All the painters work at the same rate. How many painters are needed to paint a hall in 77 days?	
4 Convert 20000 cm^2 into m^2.	
5 Solve $2x^2 - 7x - 4 = 0$	

Day 157 **A Tier 10-a-day**

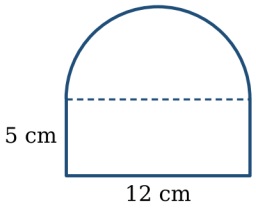
6 The table shows the probabilities of the outcomes of a biased spinner.
(a) Work out the value of y.
(b) The spinner is spun 300 times. Estimate the number of times it lands on white.

Colour	Black	White	Grey	Pink
Probability	0.25	y	2y	0.45

7 Solve $-3(x - 1) = 4(x - 4) - 9$

8 Rationalise the denominator of $\frac{18}{\sqrt{27}}$
Give your answer in its simplest form.

9 The diagram shows a shape made from a rectangle and a semicircle.
Work out the perimeter of the shape.
Give your answer in terms of π.
The diagram is not drawn accurately.



10 Two fair dice are thrown.
The two scores are multiplied together.
Work out the probability that the product is greater than 3.