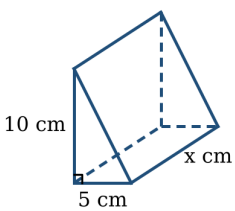
Day 158	A Tier 10-a-day
1 The area of a circle is 25π cm^2. (a) Work out the radius of the circle. (b) Work out the circumference. Give your answer in terms of π.	
2 Two fair dice are thrown. The two scores are multiplied together. Work out the probability that the product is even.	
3 Here are the first four terms of a sequence. 2, 6, 10, 14 (a) Find an expression for the nth term. (b) Find the first term in the sequence that is greater than 100.	
4 Ali buys a second-hand car for £150. He sells it for £97.50. Work out his percentage loss.	
5 The diagram shows a prism with a right-angled triangle as its cross-section. The volume of the prism is 475 cm^3. Work out the value of x. The diagram is not drawn accurately. 	

Day 158	A Tier 10-a-day
6 a : b = 1 : 2 b : c = 5 : 1 (a) Work out the ratio a : b : c (b) a, b and c add up to 102. Work out the value of c.	
7 A car is worth £25,000 and loses 6% of its value each year. (Calculator) Work out its value after 6 years. Give your answer to the nearest pound.	
8 Make x the subject of $y = \frac{3x - 5}{-x + 5}$	
9 PQR is a right-angled triangle with the right angle at Q. PR = 6 cm and angle QPR = 45°. Work out the exact length of QR. Do not use a calculator.	
10 Oscar invests £5,000 in a savings account. (Calculator) Compound interest is paid at a fixed rate each year. After 2 years the investment is worth £6,050. Work out the annual rate of interest.	