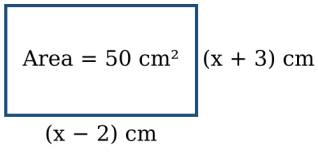
Day 284	S Tier 10-a-day
1 Solve $\frac{x-4}{5} + \frac{x-6}{2} = -8$	
2 The 5-digit number 2726k is a multiple of 4. k is a single digit. Find all the possible values of k.	
3 y is directly proportional to the square root of x. When x = 4, y = 8. (a) Find a formula for y in terms of x. (b) Find the value of y when x = 1.	
4 Work out $(1\frac{1}{2} - \frac{2}{3}) \div 1\frac{1}{2}$ Give your answer as a mixed number or a fraction in its simplest form.	
5 The diagram shows a rectangle of length (x − 2) cm, width (x + 3) cm and area 50 cm^2. (a) Show that $x^2 + x - 56 = 0$. (b) Work out the perimeter of the rectangle. 	

Day 284	S Tier 10-a-day
6 Show that $0.8\dot{7} = \frac{79}{90}$	
7 Triangle ABC has AB = 20 cm and BC = 7 cm. The area of triangle ABC is 35 cm^2. Angle ABC is obtuse. Work out the size of angle ABC. Do not use a calculator.	
8 The price of a tablet is increased by 25%. Later the new price is reduced by 30% in a sale. The sale price is £35. Work out the price before the increase. (Calculator)	
9 Solve $\frac{6}{x-2} - \frac{3}{x+4} = \frac{3}{4}$	
10 The probability that it rains on a day is 0.6. If it rains, the probability that Ali is late for school is 0.8. If it does not rain, the probability that Ali is late is 0.4. (a) Work out the probability that Ali is late. (b) Ali is late. Work out the probability that it rained.	