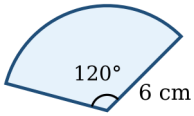
Day 221	B Tier 10-a-day
1 Solve n + 4 = 19	
2 The scale of a map is 1 : 10,000. Two villages are 4 km apart. How far apart are they on the map? Give your answer in centimetres.	
3 Work out (a) $\frac{2}{5} \times \frac{5}{8}$ (b) $\frac{3}{4} \div \frac{1}{3}$ Give each answer in its simplest form.	
4 The circumference of a circle is 22π cm. Work out the radius of the circle.	
5 In a room, the ratio of red counters to blue counters is 3 : 7. There are 42 blue counters. More red counters join so that there are equal numbers of red counters and blue counters. How many red counters join?	

Day 221	B Tier 10-a-day
6 $v^2 = u^2 + 2as$ Work out the positive value of v when u = 4, a = 3 and s = 14	
7 $A = 2 \times 3^2 \times 7^2$ $B = 3 \times 5^3$ Write down, as a product of prime factors, (a) the HCF of A and B (b) the LCM of A and B	
8 The diagram shows a sector of a circle with radius 6 cm and angle 120°. (Calculator) Work out the length of the arc of the sector. Give your answer correct to 1 decimal place. The diagram is not drawn accurately. 	
9 (a) Write $\frac{6}{25}$ as a decimal. (b) Write $\frac{2}{15}$ as a recurring decimal. For part (b), write down the first 8 decimal places and say which digits repeat.	
10 A circle has centre O and radius 11 m. (Calculator) AB is a chord and M is the midpoint of AB. OM is perpendicular to AB. Work out the value of x. Give your answer correct to 1 decimal place. The diagram is not drawn accurately. 