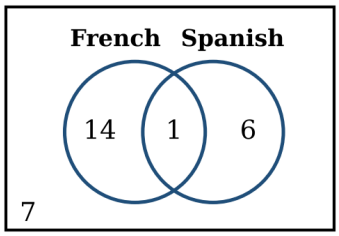
Day 97	B Tier 10-a-day
1 A train leaves at 11:43. It arrives at 15:38. How long does the journey take?	
2 P is directly proportional to n. When n = 10, P = 5. Find the value of P when n = 9.	
3 I think of a number. I multiply it by 2 and then subtract 4. The answer is 10. Work out my number.	
4 A tin of beans has radius 9 m and height 14 m. (Calculator) Work out its volume. Give your answer correct to 1 decimal place.	
5 A triangle has sides of length (2x + 4) cm, (x − 2) cm and (3x + 3) cm. Write down an expression, in terms of x, for the perimeter of the triangle. Give your answer in its simplest form.	

Day 97	B Tier 10-a-day
6 Work out the value of this expression. (Calculator) $\sqrt{8^2 + 3^2}$ Give your answer correct to 3 significant figures.	
7 A shape is made from a rectangle and a semicircle. (Calculator) The rectangle is 20 cm wide and 18 cm high. The diameter of the semicircle is 20 cm. (a) Work out the area of the shape. (b) Work out the perimeter of the shape. Give each answer correct to 1 decimal place.	
8 The Venn diagram shows information about 28 pupils in Year 9. One of them is chosen at random. Find the probability that the person chose neither French nor Spanish. 	
9 A drum has radius 7 m and height 5 m. (Calculator) It is closed. Work out the total outside surface area. Give your answer correct to 1 decimal place.	
10 Expand and simplify $(x - 6)(x + 5)$	