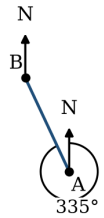
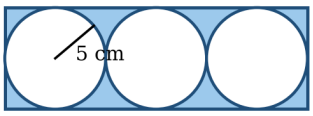
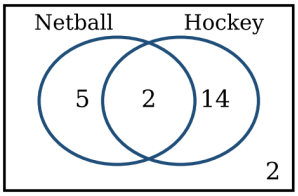
Day 217	A Tier 10-a-day
1 Write the recurring decimal $0.\dot{7}1\dot{2}$ as a fraction in its simplest form.	
2 Expand and simplify $(2x + 1)^2$	
3 The bearing of B from A is 335°. Work out the bearing of A from B. The diagram is not drawn accurately. 	
4 The mean of 10 numbers is 53. Another number is added. The mean of the 11 numbers is now 57. Work out the number that was added.	
5 Solve $2^x = \frac{1}{16}$	

Day 217	A Tier 10-a-day
6 3 identical circles of radius 5 cm fit exactly inside a rectangle. The circles touch each other and the sides of the rectangle. (Calculator) Work out the area of the shaded region. Give your answer to 3 significant figures. 	
7 The Venn diagram shows information about 23 people. One person is chosen at random. (a) Find the probability that the person is in Netball only. (b) Find the probability that the person is in neither set. 	
8 Solve $x^2 + x - 6 \geq 0$	
9 Expand and simplify $(x + 5)(3x - 3)(x - 4)$	
10 A solid is made from a cylinder and a cone. The cylinder has radius 3 cm and height 6 cm. The cone has the same radius as the cylinder and perpendicular height 4 cm. Work out the total volume. Give your answer in terms of π.	