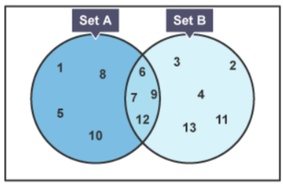
1) Write the following numbers in standard form
   a) 231000000 b) 0.00098

2) Write the following as normal numbers
   a) 3.41×10^5 b) 7.9×10^{-5}

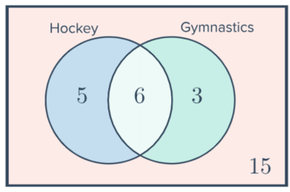
3) Write the following recurring decimals as fractions
   a) $0.\dot{4}\dot{3}$ b) $0.2\dot{1}\dot{3}$ c) $0.\dot{2}1\dot{6}$

4)



Write the following:
   a) A ∩ B b) A∪B c) A'

5) Find the probabilities from the venn diagram below



   a) $P(A \cap B)$ b) $P(A \cup B)$ c) P(B') d) $P(A \cap B')$ e) $P(A \cup B)'$

Formulae:

Simple %: $\frac{\%}{100} \times number$ **% increase/decrease:** $original \times \left(1 \pm \frac{\%}{100}\right)$

% change: $\frac{difference}{original\ value} \times 100$ **Compound interest:** $original \times \left(1 \pm \frac{\%}{100}\right)^n$

6) Find (giving your answers to 1 decimal place)
   a) 6% of 70 b) 27% of 600

7) Find the missing percentage: 53 is _____% of 78? Give your answer to 1 decimal place.

8) 17% of a number is 60. What was the original value? Give your answer to 1 decimal place.

9) A meal costs $45 plus a 8% service charge. What is the overall bill?

10) A shop has a 15% sale on. Below are the original prices of some clothing items, find the sale prices
   a) Trousers: $30

11) A soccer ball was sold for $40. In a sale, it now costs $33.50. What was the percentage change? Was it an increase or discrete?

12) Kwazi invests $5200 into a savings account that has an annual interest rate of 6%. How much money will he have in his account after 5 years?

13) Pinni bought a car for $8000. Each year its value depreciates by 2.3%. How much can she sell is for after 11 years?

14) y is directly proportional to x.
When x = 400, y = 10
(a) Find a formula for y in terms of x.
(b) Calculate the value of y when x = 450
(c) Find the value of x when y = 200

15) T is inversely proportional to the cube of L
When L = 0.2, T = 5
(a) Write a formula connecting T and L.
(b) Work out the value of T when L = 0.5
(c) Work out the value of L when T = 2