

1. (a)  $\varepsilon = \{1,2,3,4,5,6,7,8,9,10\}$ A =  $\{3.6.9\}$ B =  $\{2,4,6,8,10\}$ 

- I. Represent the above information in a venn diagram
- II. Find n ( $A' \cap B$ )

(b) there are 25 Cricket players in a certain Sports society. There are 28 Football players in that society too.Football and Cricket are the only sports in this society and all the players in the society play at least one sport.

- I. Represent the above information in a Venn diagram
- II. What is the total number of players in that society?
- III. How many players don't play football?
- 2. (a) If  $\log_5 2 = a$  find the value of  $\log_5 10$  in terms of a.

(b) Find the value

I.  $\log_2 10 + \log_2 5$ II.  $\log_{10} 25 + \log_{10} 4 - 1$ 

(c) Solve

- a.  $\log_{10} x \log_{10} 2 = \log_{10} 3 \log_{10} 4 + 1$
- b.  $\log_2 x = \log_2 5 + \log_2 4$

3 (a) If  $10^{0.8936} = 7.832$  find 1g 78.32.

(b) Find the value using the logarithms table i. 12 x 1.25

ii. 235.2 x 12.4

iii.  $\frac{6.914 \text{ x } 3.076}{8.619}$