

**Al Moattasem International School**

**Jubail**

**Level 9 - Revision Work Sheet 1**

**Chapter 8**

**Topic Sets**

**1). If,**

$$A = \{3, 5, 7, 9\}$$

$$B = \{2, 4, 6, 8, 10\}$$

$$C = \{12, 14, 18, 20, 24\}$$

$$D = \{21, 26, 31, 36\}$$

**(a) State whether true or false.**

(i)  $13 \in C$

(ii)  $6 \notin A$

(iii)  $9 \notin A$

(iv)  $24 \in C$

(v)  $31 \in D$

(vi)  $36 \notin D$

(vii)  $20 \notin C$

(viii)  $9 \in A$

**(b) Fill in the blanks.**

(i)  $3 \in \underline{\hspace{1cm}}$

(ii)  $4 \underline{\hspace{1cm}} B$

(iii)  $26 \in C$

(iv)  $8 \in \text{---}$

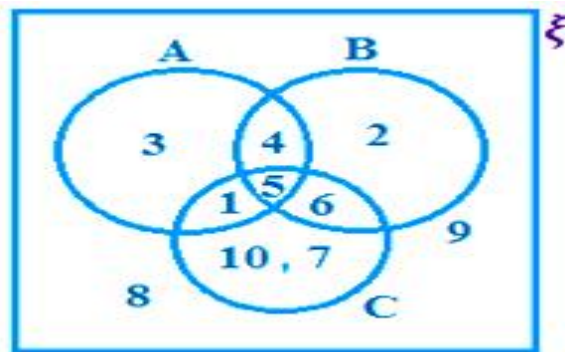
(v)  $5 \in A$

(vi)  $6 \in C$

(vii)  $21 \in D$

(viii)  $18 \in B$

**2) From the adjoining Venn diagram, find the following sets.**



(i) A

(ii) B

(iii)  $\xi$

(iv)  $A'$

(v)  $B'$

(vi)  $C'$

vii)  $A \cup B$

(viii)  $B \cup C$

(ix)  $(B \cup C)'$

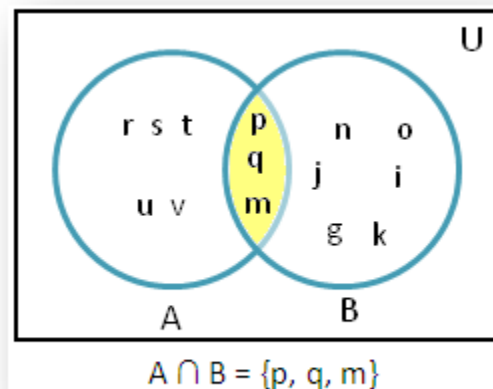
(x)  $(A \cap B)'$

(xi)  $(A \cup B) \cap C$

(xii)  $A \cap (B \cap C)$

3) If  $A = \{1, 2, 3, 4, 5\}$  and  $B = \{1, 3, 9, 12\}$ . Find  $A \cap B$  using venn diagram.

4). From the adjoining figure find A intersection B.



5) A survey of a group of students, revealed that 60 of them liked at least one of the cereals, Frosted Flakes or Lucky Charms. If 50 of them liked Frosted Flakes and 46 of them liked Lucky Charms,

(a) How many of them liked both cereals?

(b) Draw a Venn diagram showing the results of the survey.

6) In a survey of a group of 70 movie-goers, 62 liked the movie

"Catching Fire", 42 liked the movie "Divergent" and 39 liked both movies.

(a) Represent this information on a Venn Diagram.

(b) Use the Venn diagram to find how many of those surveyed did not like either movie.