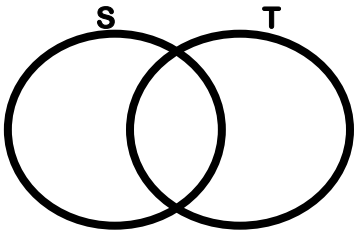
TOPICAL QUESTIONS FOR PRACTICE

SET CONCEPTS

SECTION A

1. In the Venn diagram below ,shade the region of(S∩T) /.



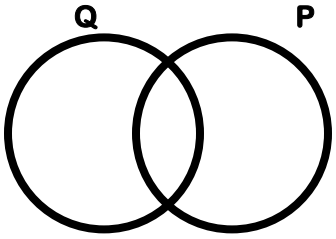
2. The number of proper subsets in set Q is 15,how many elements are in Q?

3. Draw a Venn diagram to show that all Cows(C) are Animals(A).

4. Given that Q={1,2,3,4,5} and P={prime numbers less than 10},find n(Q-P).

5. Given that M={counting numbers less than 6} and N={2,3,5,7}.Find n (M ∩ N) complement.

6. In the diagram below , shade (P- Q) /.



7. Given that the proper subsets of set Q are; { }, { p },{ o }, { t },{ p,o} ,{p,t}and { o,t } .Find n(Q).

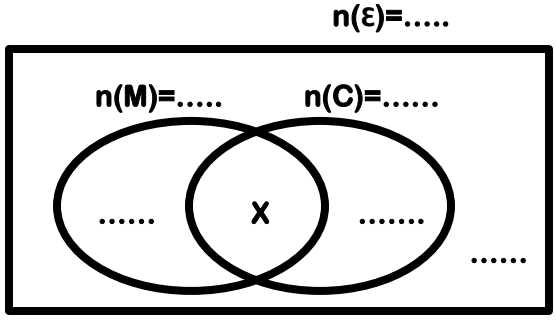
8. Given that M={0,2,4,6} and N={composite numbers less than 12}.Find n(MUN).

9. The number of proper subsets in set P is 7.Find n(P).

10. Given that (MUN) / = {f, g} and (M∩N) / = {b,c,d,i,o,u}. Find n(MUN) if N is a set all vowel letters.

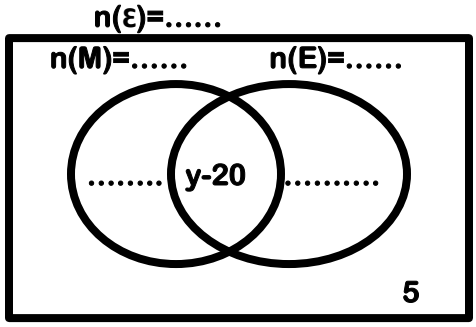
SECTION B

11. In Mpigi village , 52 traders sell different types of food. 40 traders sell matooke(M), 21 traders sell cassava(C), 12 traders sell neither of the two types of food while x traders sell both cassava and matooke.
    (a) Complete the Venn diagram below.



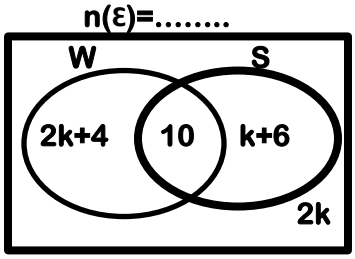
    (b) Find the number of traders who sell both types of food.
    (c) If a trader is selected at random, what is the probability of choosing a trader who does not sell any of the two types of food?

12. In a class , y pupils like Mathematics(M) only,(y – 5) like English(E) only,(y-20) like both Mathematics and English while 5 pupils do not like any of the two subjects.
    (a) Use the above information to complete the Venn diagram below.



    (b) If 35 pupils like English only, how many pupils are in the class?

13. At a birthday party ,guests were served with Mineral Water(W) soda(S) as shown in the Venn diagram below. Study it carefully and use it to answer the questions that follow.

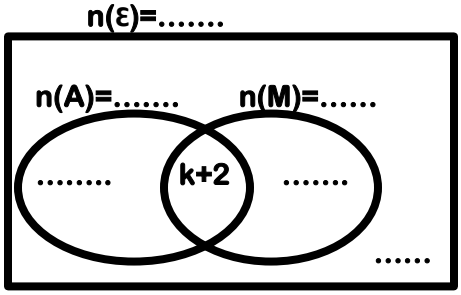


(a) If 34 guests took mineral water and soda only, how many guests took neither of the two drinks?

(b) If a guest is picked at random, calculate the probability that the guest picked took soda only .

14. In a class of thirty five pupils, all of them enjoy PE, (3k-4) enjoy Art(A) and PE only, (k+6) enjoy music and PE only, (k+2) enjoy all the three activities while (k+1) enjoy PE only.

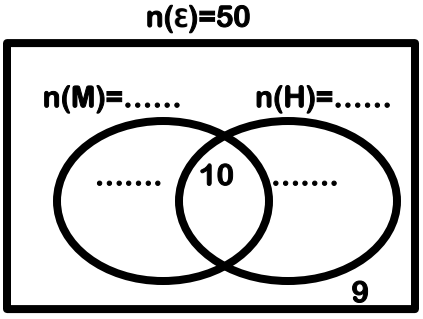
(a)Use the above information to complete the Venn diagram below.



(b)How many members enjoy all the three activities?

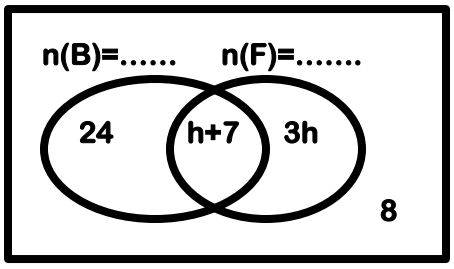
15. At a certain hospital , 22 patients tested for Malaria(M), k tested for HIV(H), 10 tested for both diseases while 9 tested for other diseases.
The number of patients tested for blood was 50.

(a)Complete the Venn diagram below using the above information.



(b)How many patients did not test for malaria?

16. The Venn diagram below shows the number of tourists who visited Bwindi Impenetrable National park. Some ate Fish(F) while others ate Beef(B) and Some ate vegetables.
Use the Venn diagram below to answer the questions that follow.



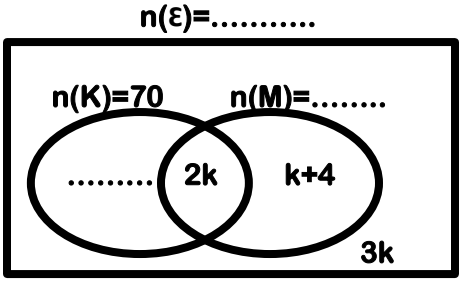
(a)If 43 tourists ate fish, find the number of tourists who ate both fish and beef.

(b)How many tourists visited the park?

(c)What is the chance that a tourist chosen at random ate beef only?

17. The Venn diagram below shows the number of tourists who visited Kidepo valley national park(K),Mburo national park and other parks during The COVID 19 lockdown. The number of tourists who visited Kidepo valley National park is 6 more than those who visited both parks .

(a)Complete the venn diagram below.

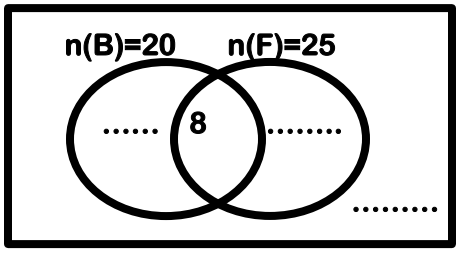


(b)How many tourists visited Mburo national park?

(c)How many tourists visited other parks?

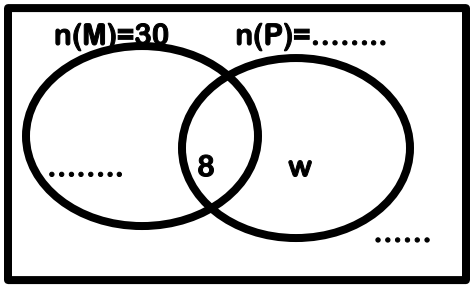
18. In a class , 20 pupils eat beans (B), 25 pupils eat Fish(F) while 8 eat both beans and Fish. Those who eat other food staffs are 9 less than those who eat beans only.

(a)Complete the Venn diagram below .



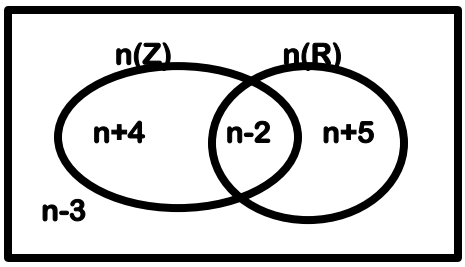
(b)How many pupils are in the class?

19. At a p.7 party, 30 candidates took Mirinda (M), w took Pepsi(P) only ,8 took both drinks while those who took other types of drinks were thrice those who took Pepsi only.
(a)Complete the Venn diagram below.



(b)If 20 candidates took Pepsi, find the value of w .
(c)How many candidates attended the party?

20. The venn diagram below shows the number of p.5 pupils of a certain school who were learning via zoom(Z), radios(R) and other platforms during the lockdown. Use it to answer the questions that follow.



(a)If n(ZUR) $^{/}$= 4, how many pupils were learning through radios ?
(b)How many pupils were learning through whatsapp?

WINNERS NEVER GIVE UP