PLE COMPILED EDITION

Topic: **whole number(operation of whole numbers)**

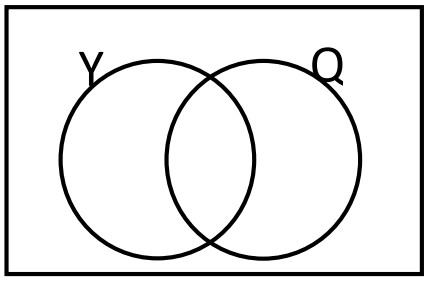
Year		Year	
2010	Workout: $10 \div 2$	2011	Work out: 3 2 x 3 [ ]
2012	Workout: $87 - 65$	2013	Workout: 22×4
2014	Workout: $14 + 53$	2015	Workout: $124 - 45$
2016	Workout: $23 + 42$	2017	Workout: 32×3
2018	Work out: $36 \div 3$	2019	Work out: 5 3 4 -1 2 3 _____
2020	Workout:473 + 312	2022	Workout: $\frac{3}{5} + \frac{1}{5}$

SET CONCEPTS TOPIC 1
YEAR 2010 PLE: TOPIC SET CONCEPTS

4 Given set A = {a , b , f , k} and set B = {a , c , k}, find n(A∪B)

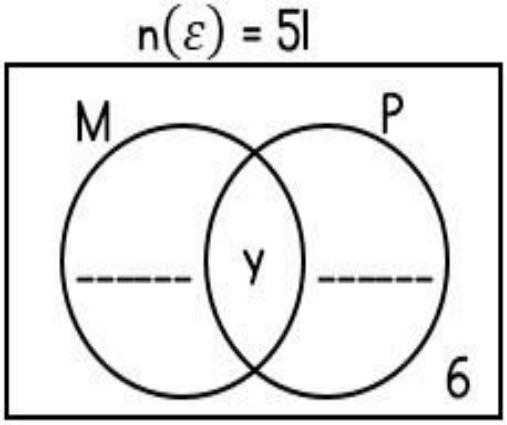
20 In the Venn diagram below, shade

The area (YUQ)



31 In a class party of 51 pupils, 28 drank mirinda (M), 29 drank pepsi (P), y drank both mirinda and pepsi while 6 did not drink any of the two sodas.

a. Use the information given above to complete the Venn diagram below.

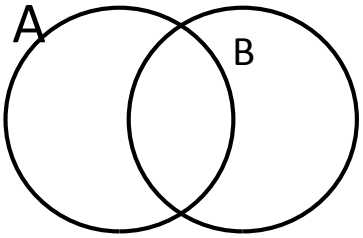


b. Find the value of y.

c. Find the number of pupils who drank one type of soda only.

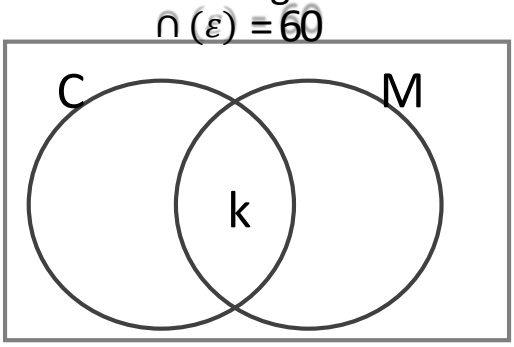
Year 2011 topic set concepts

24 In the Venn diagram below, shade the area (A∩B)



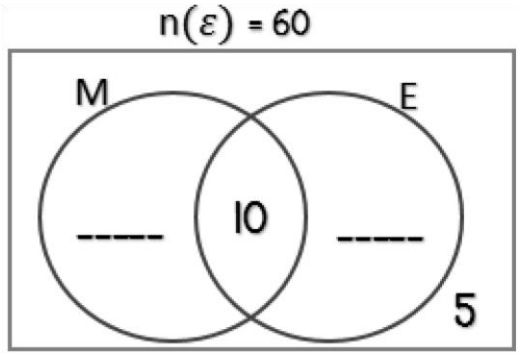
31 At a party attended by 60 pupils, 42 ate chicken (C), (k + 8) ate meat (M) only, k pupils ate both chicken and meat while 6 did not eat any of the two items.

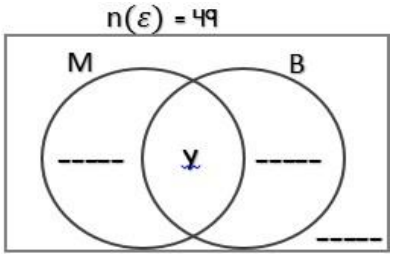
a Use the information given above to complete the Venn diagram below.

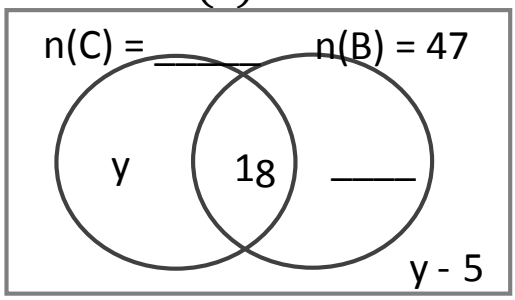


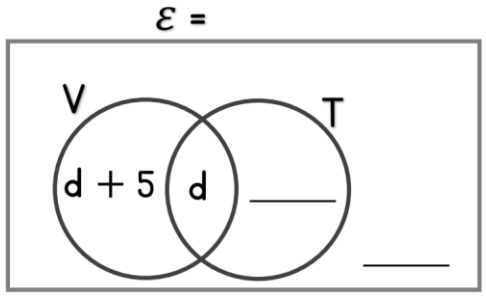
b. Find the value of k.

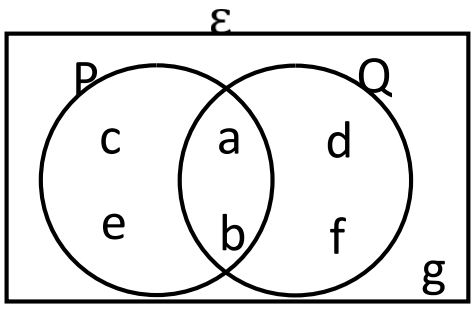
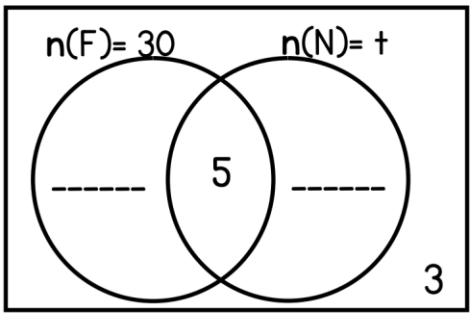
c. If a pupil is picked at random, what is the probability that a pupil ate meat?

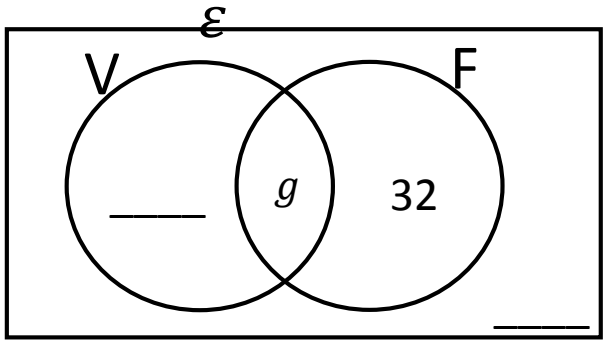
	YEAR 2012 PLE :TOPIC SET CONCEPTS
5	Given that set Q = {all prime numbers less than 10}. Find n(Q).
21	In a class of 60 pupils, 30 like English (E), y like mathematics (M) only, 10 like both subjects and 5 do not like any of the two subjects. a. Use the information given above to complete the Venn diagram below.  b. Find the value of y. a. How many pupils like Mathematics altogether?
	YEAR 2013 PLE: TOPIC SET CONCEPTS
4	Given that set P ={1 , 3 , 5 , 7 , 9} and set Q ={2 , 3 , 5 , 7}

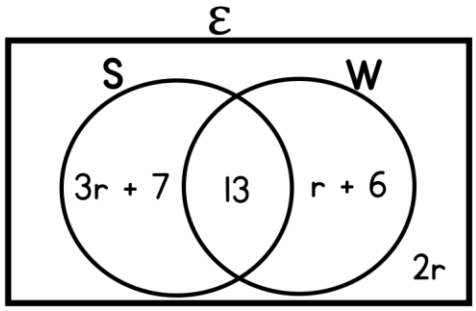
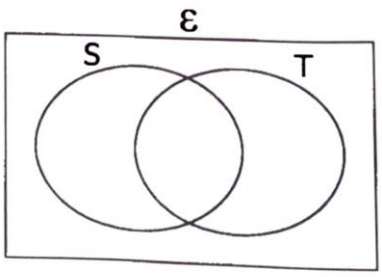
	In a village of 49 farmers, 20 grow millet (M), 25 grow beans (B) and y grow both millet and beans. 3y farmers grow neither of the two food crops a. Use the information given above to complete.  b. Find the value of y. a. How many farmers grow neither millet nor beans?
	YEAR 2014 PLE :TOPIC SET CONCEPT
4	Given that K = {1 , 2 , 3 , 4 , 5} and M = {2 , 4 , 6 , 8}. Find n(K∪M).

	A birthday party attended by 76 guests, 47 were served with beef (B) and 18 were served with both beef and chicken (C). y guests were served with chicken only while (y – 5) were not served with any of the two dishes. a. Use the information above to complete the Venn diagram below. $n(\varepsilon) = 76$  b. Find the value of y c. Find the number of guests who were served with chicken.

	YEAR 2015 PLE TOPIC SET CONCEPTS
4	Given that set K = {g, m, v, z}, find the number of subsets in set K.
21	In a class, 31 pupils play tennis (T) and (d + 5) play volleyball (V) only. d pupils play both games while 3 play neither of the games. a. Use the above information to complete the Venn diagram below.  b. If 27 pupils play volleyball altogether, find the value of d.

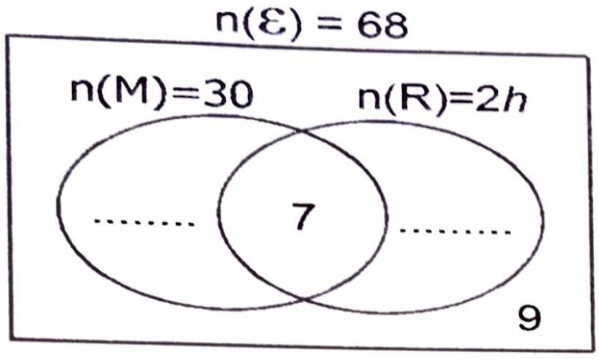
	YEAR 2016 PLE :TOPIC SET CONCEPT
	Use the Venn diagram below to find n(P∩Q)' 
21	In a class of 41 pupils, 30 play football (F), t play netball (N), 5 play both football and netball and 3 pupils do not play any of the two games. a. Use the above information to complete the Venn diagram below.  b. Find the value of t.
7	A dice is tossed once. What is the probability that a number less than 5 will appear on top?

	YEAR 2017 PLE :TOPIC SET CONCEPTS
6	Given that set N = {c , t , p}, list all the subsets in N.
23	In a class, 32 pupils play football (F) only, g play both volleyball (V) and football, $(2g - 10)$ play volleyball but not football while $(g - 2)$ play neither of the two games. a Complete the Venn diagram below using the above information.  b. Given that 62 pupils play one game only, find the value of g c. Calculate the number of pupils in the class.

	YEAR 2018 PLE TOPIC SET CONCEPTS
3	Given that P = {a, b, c, d, e, f, g} and Q = {b, a, f, e, h}. Find n(P∪Q)
21	At a party, guests were served with soda (S) and mineral water (W) as shown in the Venn diagram below. Study and use it to answer the questions that follow.  a. If 32 guests were served with soda, (i). find the value of r (ii). find the total number of guests who attended the party.
	YEAR 2019 PLE: TOPIC SET CONCEPTS
	In the Venn diagram below, shade the region (S ∪ T)′ 

22 A class of 68 pupils was served matooke (M) and rice (R). 30 pupils ate matooke and $2h$ ate rice. 7 pupils ate both matooke and rice while 9 pupils did not eat either of the foods.

(a) Use the given information to complete the Venn diagram below. (*02 marks*)



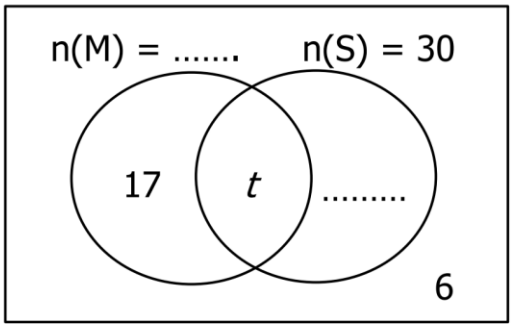
(b) How many pupils ate rice only? (*03 marks*)

YEAR 2020 PLE TOPIC SET CONCEPTS

4 Given that the subsets of set Q are; {m}, {k}, {m, k}, { }, find n(Q).

21 In a class party, two types of drinks were served, soda (S) and mineral water (M). 30 pupils took soda and t pupils took both soda and mineral water, 6 pupils took neither of the drinks while 17 pupils took only mineral water. The number of pupils who took soda only was twice that of those who took both soda and mineral water.

(a) Use the given information to complete the Venn diagram below. (*02 marks*)



(b) Find the number of pupils who took both drinks.

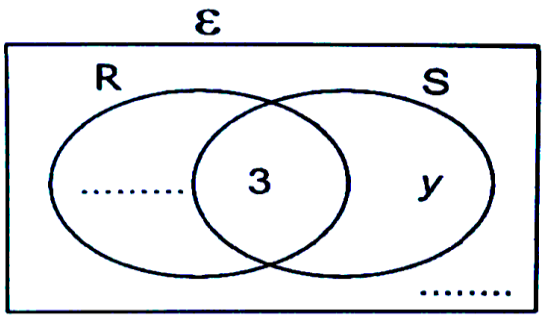
(c) Calculate the total number of pupils in the class.

YEAR 2022 PLE TOPIC SET CONCEPTS

Given that $P \cup Q = \{1, 2, 3, 4, 5, 6, 7, 8\}$, $P \cap Q = \{1, 4, 7\}$ and $P' = \{5, 6, 8\}$, list the elements of set P.

In a village, 3 farmers grow both rice (R) and sunflower (S). 24 farmers grow rice and y farmers grow sunflower only. 2y + 9 farmers grow none of the two crops.

(a) Use the given information to complete the Venn diagram below. *(02 marks)*



(b) Given that the number of farmers who grow rice only is equal to the number of farmers who grow none of the two crops, find the value of y. *(02 marks)*

(c) How many farmers grow sunflower?

YEAR 2023 PLE TOPIC SET CONCEPTS

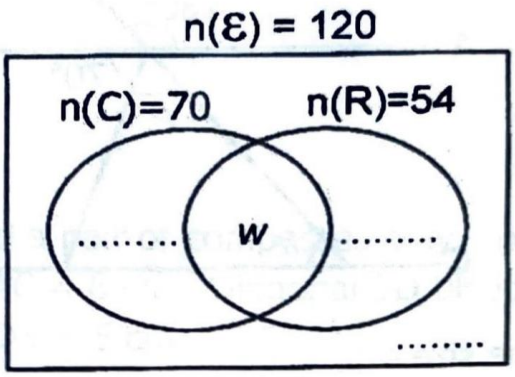
3

d) Given that R = {a, b, c, d} and S = {a, f, p, c, s}, find n(R∪S).

23

A total of 120 guests were invited for a marriage ceremony. 70 guests attended the church service (C), 54 guests attended the reception (R) and w guests attended both the church service and the reception. 40 guests did not turn up for the marriage ceremony.

(a) Use the given information to complete the Venn diagram below. *(03 marks)*



(b) Calculate the number of guests who attended both the church service and reception. *(02 marks)*

YEAR 2010 PLE :TOPIC FRACTIONS TOPIC 2

21 Workout: $\frac{5}{12} - \frac{5}{9}$

29 In a P.7 class, $\frac{2}{5}$ of the pupils are girls. If there are 150 pupils in class, find the number of boys.

41 A man spends $\frac{1}{3}$ of his salary on food, $\frac{1}{9}$ on clothing, $\frac{1}{6}$ on medical, $\frac{1}{18}$ on house rent and banks the rest which is shs.35,000.

a. What fraction of his salary does he bank?