

NAKASANA PRE PLE 2024

MATHEMATICS

SECTION A :

1. Work out: $241 - 24$
2. Write in figures: Twelve and Twelve hundredths
3. Given that $K = \{1, 2\}$, list down the proper Subsets of K .
4. Find the median of the numbers 6, 8, -1, 2, 4, and 7
5. A baptism party started at 3: 40 pm and lasted $2 \frac{1}{4}$ hours .At what time did it end?
6. Find the size of the angle lettered f in the diagram



7. What percentage of the letters in the word " PROTRACTOR "are vowels?

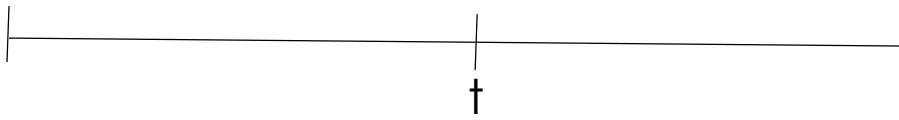
8. Solve: $2q + 5 = 3^2$

9. If the cost of 9 identical tins of glue is Sh 7335, find the cost of 18 of them.

10. Simply $-2 - -7$

11. Work out: $\frac{3}{15} \div \frac{1}{5}$

12. Using a ruler, and a pair of compasses only, construct an angle of 75° at point t on the line below .



13. What number has been expanded below?

$$(8 \times 10^3) + (3 \times 10^1) + (6 \times 10^0) + (3 \times 10^{-2})?$$

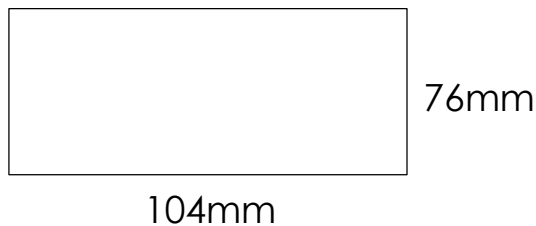
14. Given that $p = -2$, $q = 2$ and $r = 3$, find the value of $q(r + p^2)$

15. Okello packed roasted groundnuts in packets of 300gm. How many packets did he pack from 3.9kg ?

16. Work out:
$$\begin{array}{r} 1011 \\ + 111 \\ \hline \hline \end{array}$$

17. A can of milk holds 15 litres of milk. The capacity of a cup is $\frac{3}{10}$ of a litre. How many cups of milk does the can hold?

18. A wire is bent to form the rectangle below.



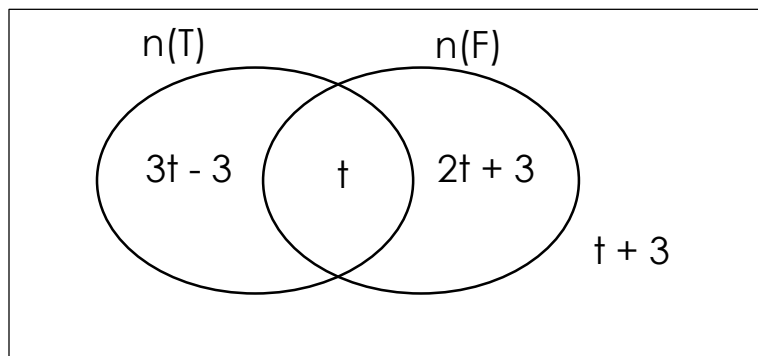
If one cm of the wire has a mass of 1 gm. Find the mass of the rectangle.

19. A helicopter flies at a speed of 360 km p.h. What distance does it cover in 30 seconds?

20 .The pages of a book are numbered from 1 to 400 .The thickness of the pages in the book is 24 cm .Calculate the thickness of one leaf of the book in mm.

SECTION B: 60 MARKS

21. The Venn diagram below shows the number of boys who play football (F) and table tennis (T) and others play neither.



Given that the number of boys who play neither is a half those who play football,

a) Find the value of t (3marks)

b) How many boys play only one game? (2marks)

22.a) Round off 42.59 to the nearest tenths. (2marks)

b) A lorry can carry 820 bricks each of mass 1.5kg .How many 1.25kg bricks can it carry? (3marks)

23 .a) Simplify : $15x - 4(2x + 6)$ (2marks)

b).Solve and write down the solution for set P: $-2P > -4$ where p is a whole number. (3marks)

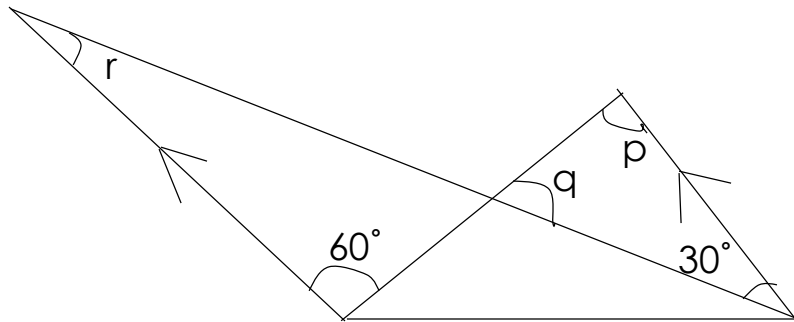
24.a) Calculate the simple interest on Sh 300,000 borrowed for 9 months at a rate of 24% per annum . (3 marks)

b) Use distributive property to work out $(16 \times 14) - (16 \times 14)$ (2 marks)

25 a) Work out the average of 3, 0, a +3, 4a and 4 (3 marks)

b). A bore hole pumps 7.2 kl of water in one hour .How many litres does it pump in one minute? (2marks)

26. Study the diagram below and answer the questions that follow.



Find the size of angle:

(i) P (1mark)

(ii) Q (2marks)

(iii) R (1 mark)

27. Three boys Peter, Musa and John shared Sh 81,999 so that Peter's share was $\frac{2}{3}$ of Musa's and Musa's share was $\frac{3}{4}$ of John's share .How much did John get? (4marks)

28. The table below shows Obua's expenditure during his son's birthday.

ITEM	QUANTITY	UNIT PRICE	TOTAL AMOUNT
Sugar	3kg	Sh 3000 per kg	Sh
Ricekg	Sh 3000per kg	Sh 7500
Meat	750gms	Sh 10,000per kg	Sh.....
Salt	500gmsper kg	Sh 750
Tomatoes	1/3 kgper kg	Sh .6000
Total expenditure			Sh.....

a) Complete the table above (6marks)

b) If he was given a discount of 10% on the total expenditure ,how much was the discount ?(1 marks)

29. Using a ruler and a pair of compasses, only construct triangle PQR in which $PQ = 7\text{cm}$, angle $Q = 60^\circ$ and angle $P = 45^\circ$.
(4marks)

Measure:-

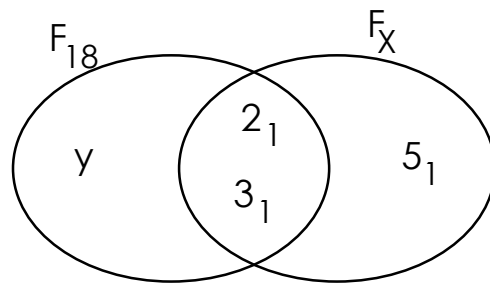
(i) PR

(1 marks)

(ii) QR

(1 Marks)

30 . Use the diagram below to answer the questions that follow.



a) Find the value of :

(i) X

(1 mark)

(ii) y

(1 mark)

b) workout the :

(i) GCF of F18 and Fx

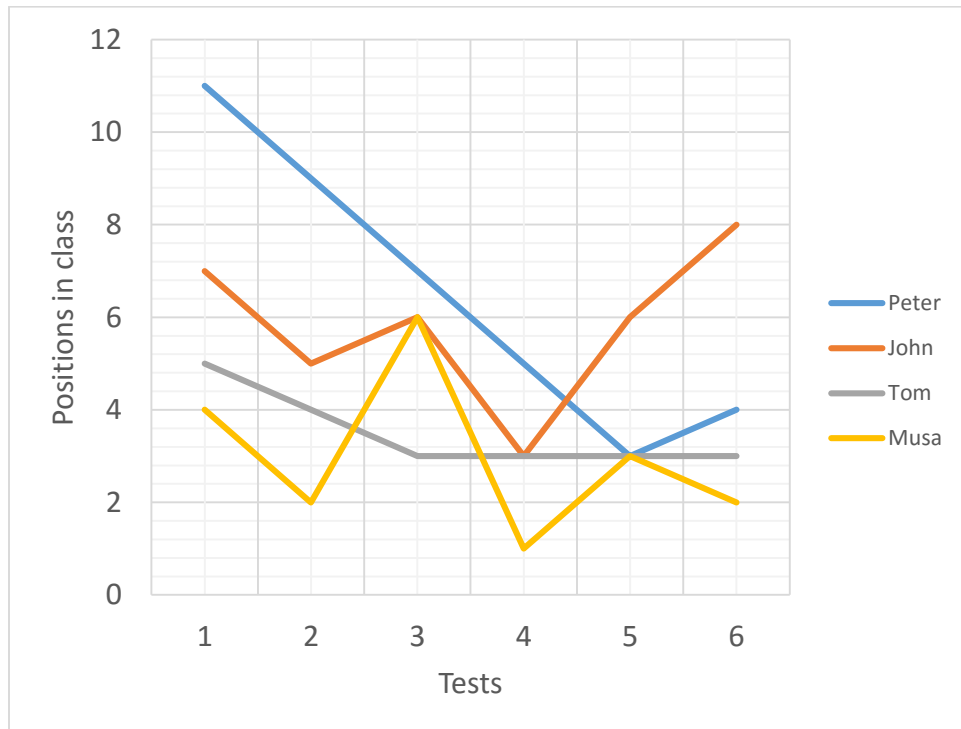
(1mark)

(ii) LCM of F18 and Fx

(1 mark)

31. Work out the area of a circle whose circumference is 440cm .
take π as $\frac{22}{7}$ (5 marks)

32. The graph shows the positions held in a class by 4 boys according to marks obtained in 6 different tests in mathematics. Study it and answer the questions that follow.



(a). Which of the four boys would you consider to be the best in mathematics? (1 mark)

(b) In how many tests did Musa score more marks than any of the other three boys ? (1 mark)

(c) . Who had a better progress in most of the tests.? (1 mark)

(d) In how many tests did Tom score more marks than John?

(1 mark)

(e) Who scored almost the same marks in the tests?(1 mark)