

EXAMINATIONS COMMITTEE

SPECIAL SET THREE 2022

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No. :

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Candidate's Name :

Candidate's Signature :

Emis No :

District Name :

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Read the following instructions carefully:

1. This paper has **two** sections: **A** and **B**.
2. All the working for both sections **A** and **B** must be shown in the spaces provided.
3. All working must be done using a blue or black ball-point pen or fountain pen. Any work done in pencil other than graphs, pictures and diagrams will **not** be marked.
4. **No calculators** are allowed in the examination room.
5. Unnecessary changes of work may lead to **loss** of marks.
6. Any handwriting that cannot easily be read may lead to **loss of marks**.

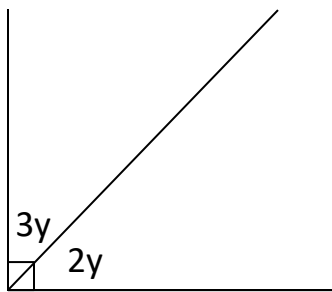
FOR EXAMINERS' USE ONLY		
Qn. No.	MARKS	
1 – 5		
6 – 10		
11 – 15		
16 – 20		
21 – 22		
23 – 24		
25 – 26		
27 – 28		
29 – 30		
31 – 32		

SECTION A (40marks)

1. Workout: $34 + 42$

2. Simplify: $7k - 2m + k - 3m$

3. In the diagram below find the value of y .

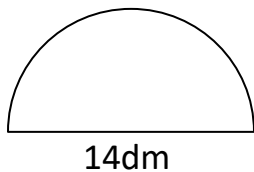


4. What is 1001_{two} in a decimal base?

5. Workout the mean of $8P$, 9 , $4P$ and 11 .

6. How many prime numbers are there between 10 and 20?

7. Calculate the perimeter of the semi-circle below.



8. Workout: $1\frac{1}{2} \div \frac{3}{4}$

9. Kiti Junior School will have a football match with Hana Academy next week. What is the probability that Hana Academy will win the match?

10. The speed of a car is 60km/hr. What distance will it cover in one hour and 30 minutes.

11. What percentage of sh. 12,000 is sh. 3,000?

12. Simplify: $-7 - -5$.

13. The bearing of Gulu town from Apac town is 067° . What is the bearing of Apac town from Gulu town?

14. With a help of a ruler, pencil and a pair of compasses only construct an angle of $22\frac{1}{2}^\circ$.

15. The difference between $\frac{1}{5}$ and $\frac{1}{6}$ of a number is 7. Find the number.

16. Find the next number in the sequence below 3, 9, 27, 81, _____

17. A baby went to sleep at 1730 hours, what is this time in a 12 hour clock system?

18. Use distributive property to work out $(90 \times 0.25) + (0.25 \times 10)$

19. Solve: $3m - (2 + m) \geq 6$.

20. When $\frac{1}{9}$ of the pupils in P.7 are absent 32 pupils are present. What is the total number of pupils in P.7.

SECTION B

21. (a) Write in words: 34013.

(2marks)

(b) Change 13_{ten} into binary system.

(2marks)

(c) Expand 3045 using place values.

(2marks)

22. Ayikoru bought the following items in the market:

3kg of beef at sh. 7000 each kg.

$2\frac{1}{2}$ kg of rice at sh. 3000 per kg.

750gms of posho at sh. 10,000 per kg.

(a) Find her total expenditure.

(4marks)

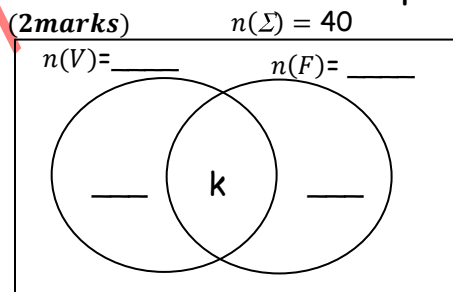
- (b) Workout her change if she used sh. 1500 for transport and she went with sh. 50,000 note. (2marks)

23. (a) Using a ruler, pencil and a pair of compasses only construct a quadrilateral ABCD where $AB=4\text{cm}$, $BC=6\text{cm}$ and angle $ABC=60^\circ$. (4marks)

- (b) Measure the diagonal BD. (1mark)

24. In a class of 40 pupils, 21 pupils play football (F) only, 15 pupils play volleyball (V) only and K pupils play both games.

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

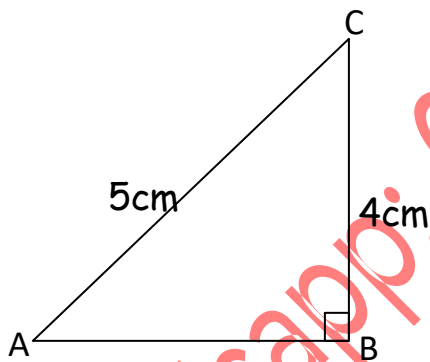


(b) Find K.

(2marks)

(c) Find the probability of picking a team captain who plays volleyball. (1mark)

25. Study the figure below:



(a) Work out its area.

(4marks)

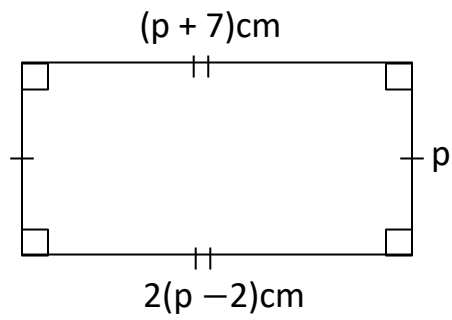
26. (a) The cost of one US dollar is Ug.Sh.2500. How many dollars will Paul buy with Ug.Sh.525,000. (2marks)

(b) Amos joined this school in 2011 and he left in 2016. For how long was Amos in this school. (2marks)

27. (a) Express 5m/sec into km/hr. (3marks)

(b) Teacher's meeting which lasted for $1\frac{1}{2}$ ended at 4:20pm when did the meeting begin? (2marks)

28. Use the figure below to answer questions below:



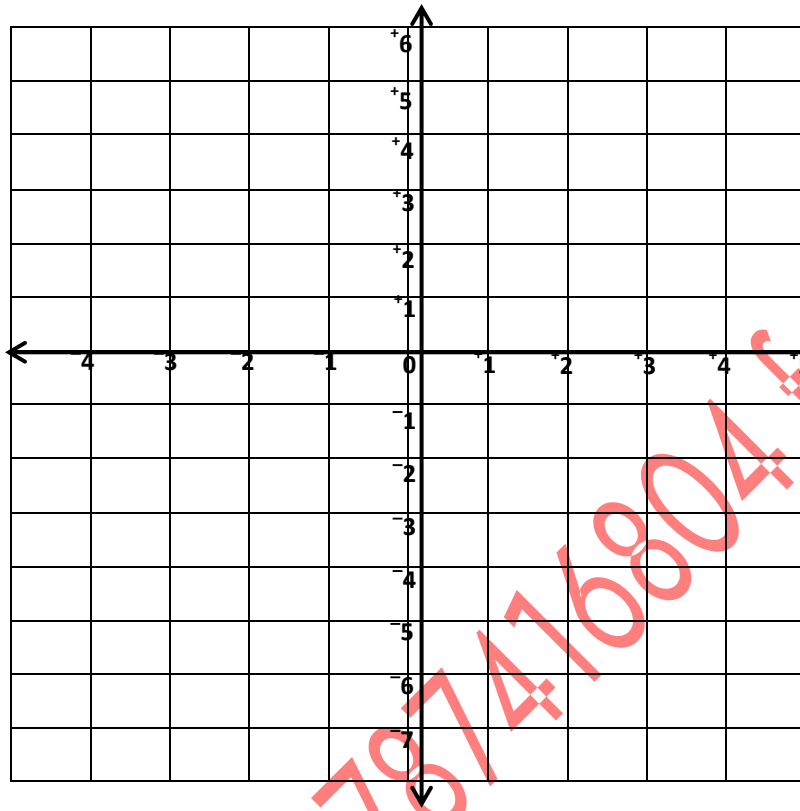
(a) Find P .

(2marks)

Workout its perimeter.

(3marks)

29. (a) In the grid below plot the following points: A(-2, -2) B(-2, +4) C(+2, +4) D(+6, -2)(4marks)



(b) Join A to B, B to C, C to D and D to A.

(1mark)

(c) Name the figure formed.

(1mark)

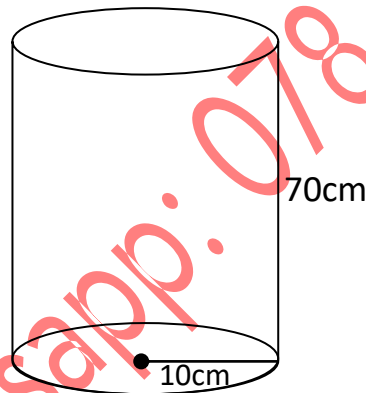
30. In a class, $\frac{1}{4}$ of pupils like English, $\frac{2}{3}$ of the remainder like mathematics and the rest like science. If 36 pupils like science. How many pupils are in the class?

(4marks)

31. In Mbuya Parents School, 600 books in the library are for English, 450 books are for SST and 750 books are for mathematics.
Use the above information and draw a pie chart of radius 4.5cm in the space below.

(5marks)

32. Use the cylindrical tin below to answer questions below.



- (a) Workout its volume.

(3marks)

- (b) Calculate the capacity of the above.

(2marks)