

KAMPALA PARENTS' SCHOOL 2004

MOCK I EXAMINATION, 2021

MATHEMATICS - P.7

Time: 2hrs 30min

NAME: _____ INDEX.NO. _____ STREAM: _____

SECTION A (40 MARKS)

1. **Divide:** 404 by 4

2. Given that $P = \{a, b, c, d\}$ and $Q = \{a, e, i, o, u\}$. Find $n(P \cup Q)$.

3. A scientist gave the distance of a satellite from the earth as 4.51×10^5 km. How many km was this?

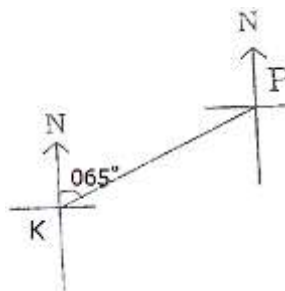
4. Write CDXXXI in Hindu Arabic numerals.

5. Convert 0.5m^2 to cm^2

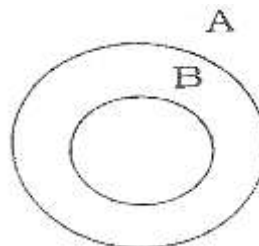
6. Write the next number in the sequence.

25, 16, 9, 4, _____

7. What is the bearing of town K from P?



8. Shade the region B'.



9. Change 68_{ten} to Quinary base.

10. **Work out:** $\frac{0.24 \times 0.3}{0.08}$

11. Express $0.3636 \dots$ as a simplified common fraction.

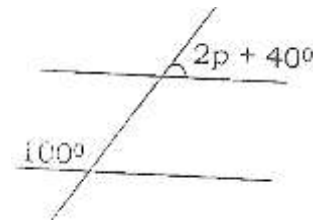
12. The average age of 2 boys is 30 years. When their sister joins the group, their average age is 28 years. Find the age of the sister.

13. Work out the square root of the fourth composite number.

14. A mathematics Exam started at 10:50am and ended at 1:20pm, for how long was the exam?

15. Y% of shs. 3,500 is 7,000/=. What is the value of Y?

16. Find the size of angle marked P in the figure below.



17. **Work out:** $(0.25 \times 10) + (0.5 \times 10)$

18. Kato is thrice as old as his sister. How old is the sister if the sum of their age is 28 years?

19. Mary deposited shs. 80,000 in a bank which gives a simple interest rate of 7% per year. Find her interest after 6 months.

20. **Work out:** $^{-}3 - ^{-}4$

c) How long did the children rest after the Science Examination? (2mks)

SECTION B (60 MARKS)

21. Kiza spent $\frac{1}{3}$ of his salary of food, $\frac{1}{4}$ of the remainder on fees and saved 36,000/=. Find his total income per month. (4mks)

23. A boat sailed due to East a distance of 50km from port A to B, it then sailed due to South a distance of 40km from port B to C.

a) Draw a sketch to show the route of the boat. (1mk)

22. Study the Examination timetable below and answer the question that follow.

Days	Subject	Starting time	Ending time
Monday	Maths	9:00a.m	11:30a.m
	SST	2:00p.m	4:15p.m
Tuesday	Science	9:00a.m	11:30a.m
	English	2:00p.m	4:15p.m

a) Express the ending time of English Examination in a 24 hour clock. (1mk)

b) Using a scale of 1cm to 10km, construct an accurate diagram to show the route of the boat. (3mks)

b) For how long did the Mathematics Examination last? (2mks)

- c) Find the shortest distance between port A and C. (1mk)

24. a) The temperature on top of a mountain at noon was 18°C and dropped down by 10°C at 3:00pm. What was the new temperature at 3:00pm? (2mks)

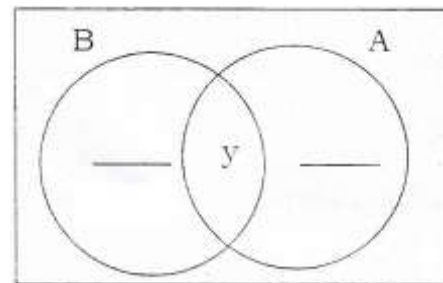
- b) Solve and write the solution set for;
 $4q + 7 \leq 27$ (3mks)

25. Given that; $y = 3x + 1$. Complete the table below. (showing the working) (5mks)

X-axis	0	—	3	—	5	6
Y-axis	1	7	—	13	—	—

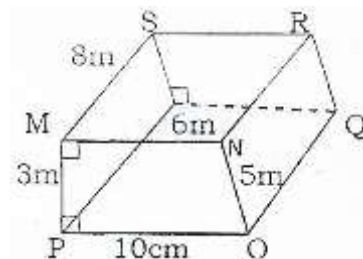
26. Of the 22 people who contested for presidency, $y + 2$ had senior four (S.4) certificates (B) only, $y + 3$ had Senior six certificates (A) only and y had all the two certificates, while two people had no certificates.

- a) Complete the Venn diagram below. (3mks)



- b) Find the number of people who had all the certificates. (2mks)

27. Mr. Opio welded a tank in a form of a prism as shown below.



a) Find the area of the face MNOP. (2mks)

b) Calculate the volume of the prism above. (3mks)

28. a) The interior angle of a regular polygon is 100° more than the exterior angle. Find the size of the exterior angle. (2mks)

b) Name the polygon. (3mks)

29. A motorist travelled from 8:00am to 10:30am covering a distance of 180km.
a) Find the average speed for the whole journey? (2mks)

b) Express his speed in m/s. (3mks)

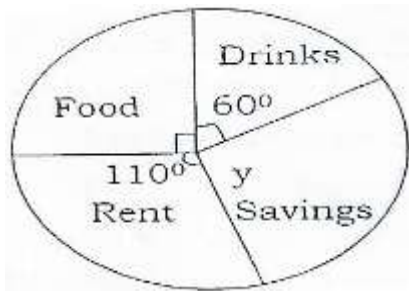
30. Cissy went shopping for her graduation party with a list of items as shown below.
a) Complete the table. (5mks)

Item	Quantity	Cost Per (kg)	Amount
Sugar	8kg	Shs.1,500	_____
Meat	8kg	Shs.2,500	20,000
Rice	2½kg	_____	2,500
Onions	4kg	Shs.1,000	_____
Spices	3kg	_____	4,500
Total			_____

- b) She bought all items from one shop and was given a discount of 10%. How much did she pay? (1mk)

- c) How much more money does he spend on rent than food? (1mk)

31. The pie-chart below shows how Mr. Mukasa spends his salary.



- a) Find the value of y in degrees. (2mks)

- b) If he spends shs. 36,000 on drinks, find his salary. (2mks)

- 32.a) Buzabo is twice as old as Merci and their total age is 33 years. How old is Merci? (2mks)

b) **Solve:** $\frac{2}{3}(m - 2) = 12$ (2mks)

- c) Subtract $2k - 4$ from $5k - 4$. (1mk)

*** Good Luck! ***