

MOCK EXAMINATIONS

2022

MATHEMATICS (SPECIAL SET 1)

Time allowed: 2 hours 30 minutes



Random No.						Personal No.		

Candidate's name:

Candidate's Signature:

District ID:

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Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has two sections **A** and **B**. Section **A** has **20 questions** and **section B** has **12 questions**. This paper has **15 pages** printed altogether.
3. Answer **all** questions. All the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **NOT** be marked.
5. **No calculators** are allowed in the examination room.
6. Unnecessary **changes** in your work and handwriting that cannot be easily read may lead to loss of marks.
7. Do not fill anything in the table indicated
"For examiners' use only" and the boxes inside the question paper.

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

SECTION A: 40 MARKS

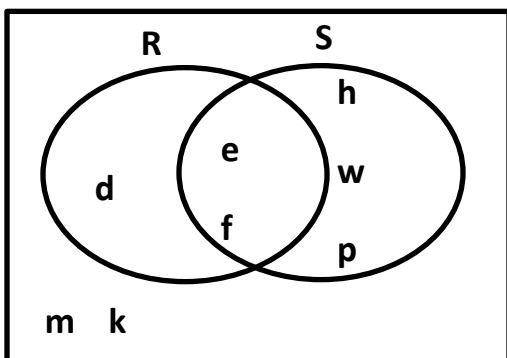
Answer **all** questions in this section
Questions **1** to **20** carry two marks each.

1. Work out: $39 \div 3$

2. Write 90049 in words.

.....
.....

3. In the venn diagram below, find **n(S)** complement.



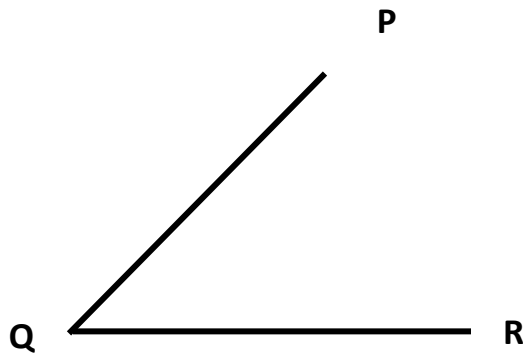
4. Work out : $\frac{3}{4} + \frac{2}{3}$

5. Solve the inequality: $5 - 3q < 17$



6. Find the sum of the next two numbers in the sequence below:
1, 3, 6, 11, 18 ____, ____

7. Using a protractor, measure angle PQR below:



8. The cost of 2 litres of petrol is sh.8000. How much petrol will one buy with sh.14000?

Turn over

9. Round off 99.64 to the nearest whole number.

10. Given that $m=n=4$ and $g=-2$, evaluate $\frac{mn-g}{g+5}$



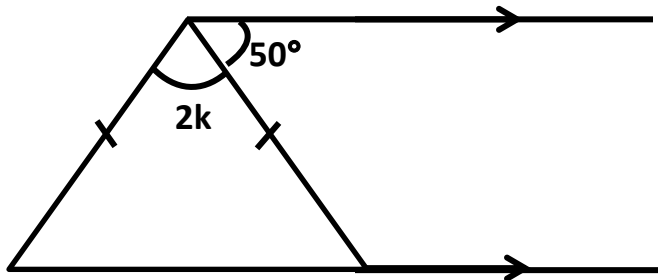
11. The Lowest Common Multiple (LCM) of two numbers is 36 and their Greatest Common Factor (GCF) is 6. If the first number is 12, find the second number.

12. Henry borrowed sh.300,000 from a money lender. He paid a simple interest rate of 8% per month for 3 months.
Calculate the simple interest he paid after the 3 months.

13. A box of chalk weighs 11.5kg. When the box of chalk is a half full of chalk, it weighs 6.5kg. Calculate the weight of chalk only.

14. The circumference of a semi circle is 22dm. Find its area.

15. Find the value of k in the figure below in degrees.



16. Suzan bought 3.5kg of maize flour. She packed all the flour in small sackets of 500 g each.

How many sackets did she get from all the flour?

Turn over

17. Work out : $(86 \div 4) - (6 \div 4)$ using distributive property only.

18. A bus moving from Kampala to Kisoro took 7 hours and 25 minutes. If the bus reached Kisoro at 2:10p.m.
At what time did the bus leave Kampala?

19. Yesterday was Wednesday, what day of the week will it be after 17 days from today?

20. A cheetah ran a distance of 60 metres in only 3 seconds.
Calculate the speed it was using in km/hr.



SECTION B: 60 MARKS

Answer **all** questions in this section.

Marks for each of the part of the question are indicated in the brackets.

21. a) Work out:
$$\begin{array}{r} 4 \ 2 \ 3_{\text{five}} \\ -1 \ 3 \ 4_{\text{five}} \\ \hline \end{array}$$

(2marks)

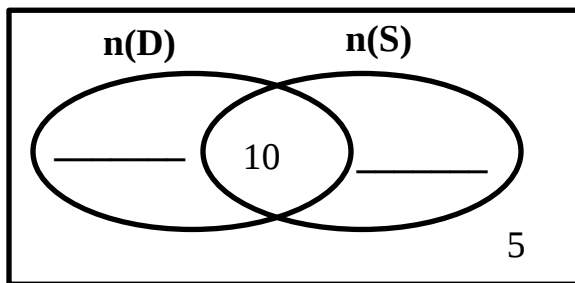
b) Express CXCIV as Hindu Arabic numerals.

(2marks)

22. In a class of 50 members, 25 like dancing (D), 10 like singing (S) only, 10 like both activities while 5 do not like any of the two activities.

a) Complete the Venn diagram below.

(2 marks)



b) Find the number of members who like singing

(3 marks)



Turn over

23. Stellah went for shopping and bought the following items:

- 3 kg of beans at sh.3800 @ kg
- $1\frac{1}{2}$ kg of salt at sh.1500 per kg
- 500 g of meat at sh. 15000 per kg
- 8 apples at sh.4800.

a) How much money did she spend altogether? **(4marks)**

b) If she was given a discount of sh.2595.

Calculate her percentage discount.

(1mark)

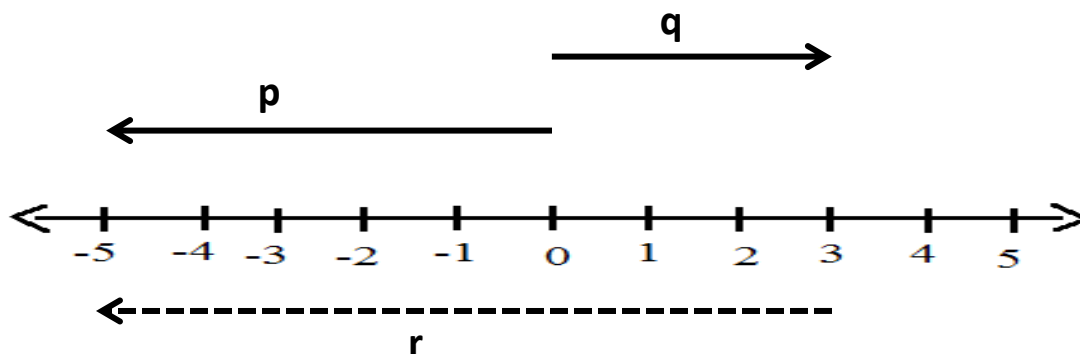
24.a) Mr. Mutyaba spent $\frac{4}{7}$ of his salary and saved the remaining money. If he saved sh.180000, what was $\frac{2}{3}$ of his salary?

(3marks)

b) The cost of a cock, a duck and a turkey are in the ratio of 3:4:5 respectively. The cost of a turkey is sh.50,000 more than the cost of a cock. Calculate the total cost of a duck and a turkey. **(3marks)**



25. Study the number line below and use it to answer the questions that follow.



a) Write the integers represented by the arrows: **(1mark@)**

I. $r =$

II. $p =$

III. $q =$

b) Write down the subtraction mathematical sentence for the above number line. **(2marks)**

Turn over

26.a) Solve and find the solution set for the inequality:

$$12 > 3p - 3 \text{ where } p \text{ is a natural number.}$$

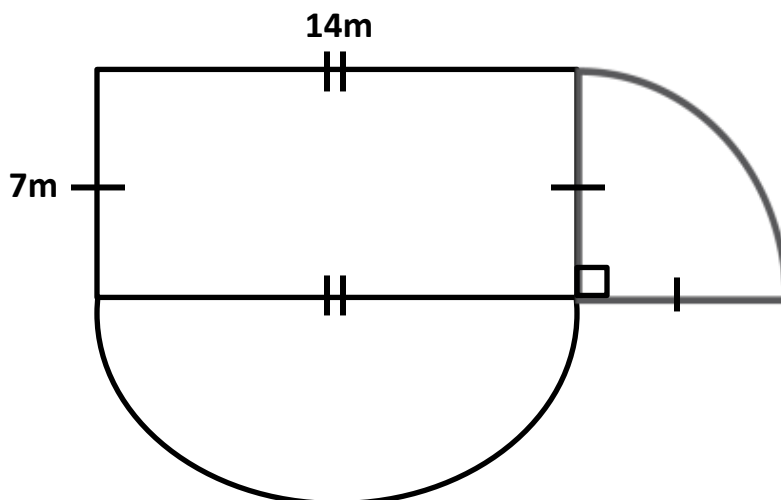
(3marks)

b) Subtract $b-2$ from $4b$

(2marks)



27. The figure below is of a banana garden, use it to answer the questions that follow.



a) Find the area of the banana garden.

(4marks)

b) Find the total distance round the banana garden.

(2marks)

28. Tap P alone takes 4 minutes to fill a water tank. Tap Q alone takes 8 minutes to draw water from the same tank.

a) How long will it take to fill $\frac{3}{4}$ of the same tank when both taps are left open at the same time?

(3marks)

b) If it took one minute to fill 120 litres, find the capacity of the tank.

(2marks)



Turn over

29. In an athletics competition which started at 10:00a.m, Kimrotan, Kiprotic and Kipong took 30minutes, 40 minutes and 60 minutes respectively to reach at their starting point for the first lap. If they continued running for other laps. At what time will they reach again their starting point at the same time? **(4marks)**

30. The table below shows the performance of pupils in a test. Use to answer the questions that follow.

Number of pupils	4	1	k	2
Marks scored	65	90	80	70

a) If the average mark was 73, find the value of k. **(3marks)**

b)How many pupils scored above the median mark? **(2marks)**

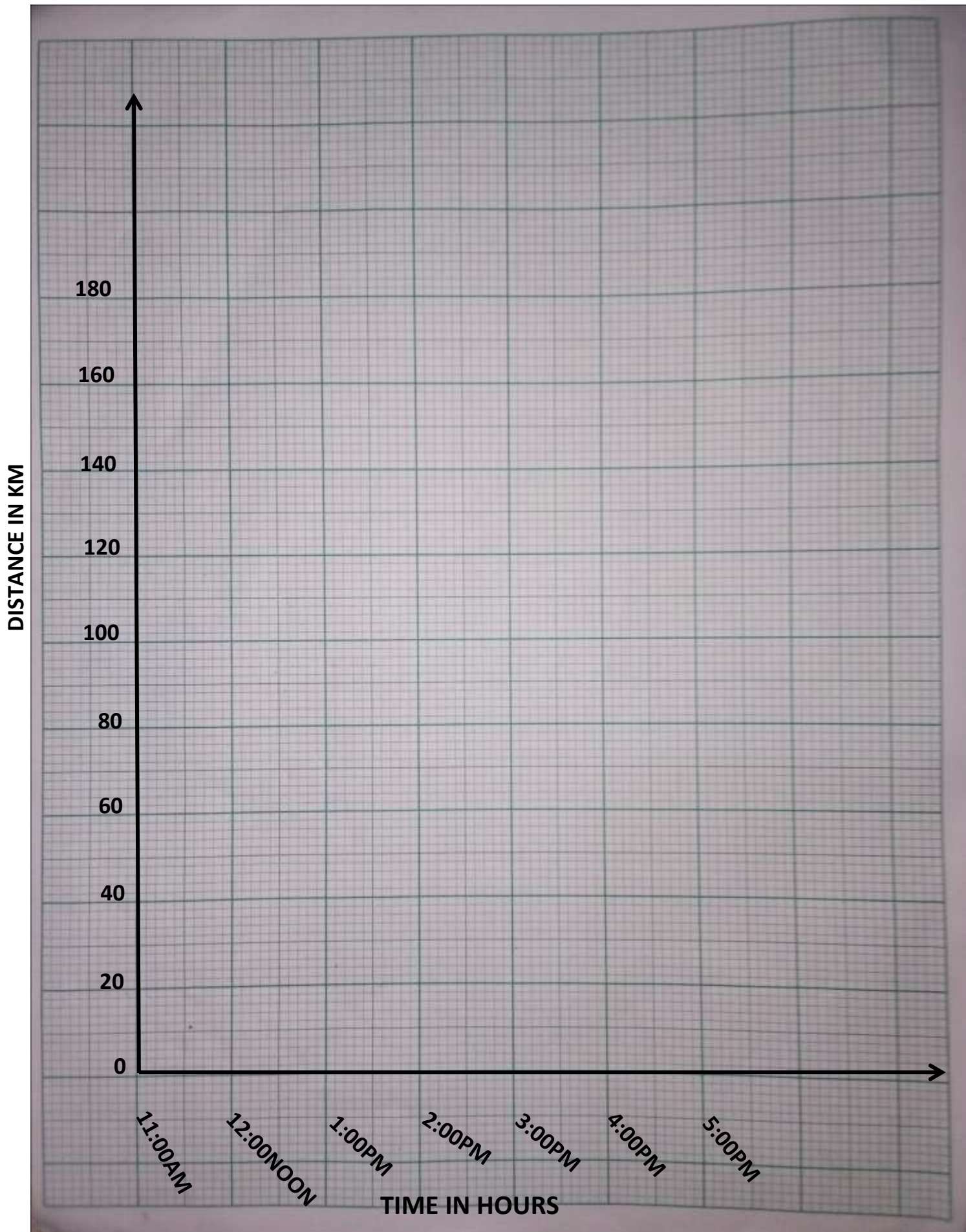


- 31.Using a pair of compasses, ruler and a very sharp pencil only, construct a rhombus PQRS where diagonal QS and PR are 6cm and 8cm respectively. **(5marks)**

- 32.A motorist drove from Kampala to Jinja through Mukono. He started the journey at 11:30a.m and drove at a speed of 50km/hr for $1\frac{1}{2}$ hours. He rested at Mukono for 30 minutes and then continued to Jinja which is at a distance of 85km away from Mukono at a speed of 34km/hr.

- a)Show the motorist journey on the graph below. **(4marks)**

Turn over



b)At what time did the motorist reach reach Jinja? **(1mark)**

END

