DIVINE EDUCATION CENTRE

P.7 BEGINNING OF TERM 1 EXAMINATION

2023

MATHEMATICS

Time allowed: 2hours 30 minutes

Random No.						Personal No.		

Candidate's name: .....

Candidate's Signature: .....

District ID:

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 **12 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		

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Turn Over

SECTION A: 40 MARKS

*Answer **all** questions in this section*

*Questions **1** to **20** carry two marks each*

1. Work out:
$$\begin{array}{r} 3\ 4\ 7 \\ +\ 1\ 5\ 2 \\ \hline \end{array}$$

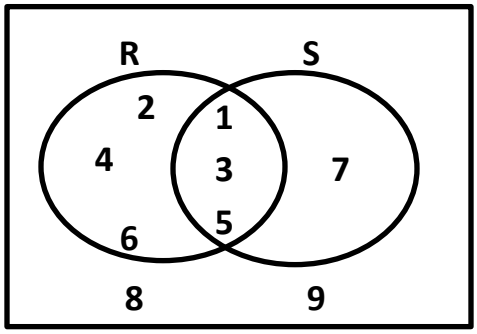
2. Write 11,011 in words

3. Simplify: $^{-}7 - {}^{+}2$

4. Find the next two numbers in the sequence:

   1, 2, 6, 15, 31, ..., ...

5. Study the venn diagram below and use it to answer the question that follows .



Find n(R U S) complement

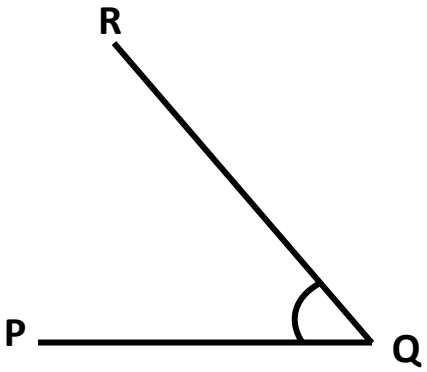
6. Joan collected mangoes as shown by the tallies below.

How many mangoes did she collect?

7. Express 150 minutes as hours.

8. Work out: $\frac{3}{4} - \frac{2}{5}$

9. Using a protractor, measure angle PQR below.



10. How much will Namubiru pay for a half dozen of books if each book costs sh.5,000?

11. Geofrey had a bundle of fifty thousand shilling notes numbered from AR4327107 to AR4327206.
How much money did he have altogether?

12. Find the Lowest Common Multiple of 6 and 9.

13. Simplify; $4m - n + m - 3n$

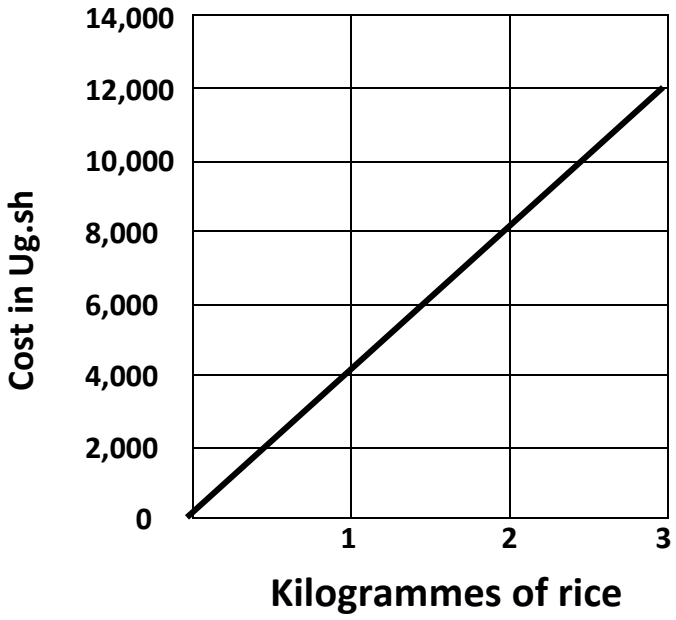
14. A driver covered a distance of 200km from Mbarara to Kampala at a a steady speed of 80km per hour.
How long did the driver take to reach Kampala?

15. Given that 3y and 36° are complementary angles. Find the value of y.

16. A worker's salary of sh.120,000 was increased by 25%.

What is the worker's new salary?

17. The line graph below shows the kilogrammes of rice and the cost.



How much will James pay for $1\frac{1}{2}$ kg of rice?

18. Given that $\pi = \frac{22}{7}$ and r = 7. Find the value of $\frac{1}{2}\pi r^2$

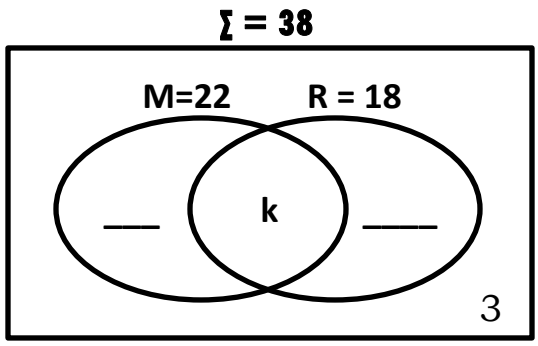
19. A water tank had a base area of 61600sq.cm.
Find the radius of the tank.

20. A trader bought a fifty kilogramme sack of sugar at sh.225,000.
He later sold all the sugar in small packets of 250 grammes at sh.1200 each.
Calculate the money he sold the sack of sugar.

SECTION B: 60MARKS

*Answer **all** the questions in this section*
Marks for each question are indicated in the brackets

21. In a class of 38 pupils, 22 like matooke(M), 18 like rice(R),k like both foods while 3 like neither of the two types of food.
(a)Use the given information to complete the venn diagram below. ***(2marks)***



(b) Find the value of k ***(2marks)***

(c) How many pupils like only one type of food? ***(2marks)***

22. a)Work out: $\begin{array}{r} \mathbf{1\ 1\ 0\ 1_{two}} \\ +\ \mathbf{1\ 1\ 1_{two}} \\ \hline \end{array}$ ***(2marks)***

b)Express $\mathbf{43_{five}}$ as a binary base. ***(3marks)***

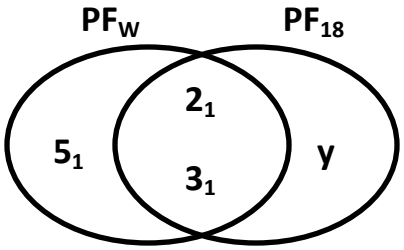
23. Joshua bought the following items as shown in the price list below.
    - 3kg of maize flour at sh.2,500 @ kg
    - 2 kg of sugar at sh.4,800 per kg
    - $1\frac{1}{2}$ litre of milk at sh.3,000

a) Calculate his total expenditure ***(3marks)***

b)How much money did he remain with if he went with sh.30,000?

(2marks)

24. Study the venn diagram below and use it to answer the questions that follow.



a) Find the value of : ***(2marks@)***

i)y ii)w

b)Find the LCM of PF_w and PF_{18} ***(2marks)***

25. The marks below were scored by P.6 pupils in End of term 3 Examinations.
50,80,70,50,90,80,70,50,70 and 50

a) Use the above information to complete the table below correctly.
(2marks)

Marks scored				
Number of pupils				

b) Calculate the mean mark ***(3marks)***

26. In a class of 35 pupils , $\frac{2}{5}$ of them are boys and the rest are girls.

a) How many girls are in the class? ***(3marks)***

b) How many more girls than boys are in the class? ***(2marks)***

27. Aaron deposited sh.100,000 in a bank which offers an interest rate of of $7\frac{1}{2}$ % per month. The money was in the bank for 4 months .

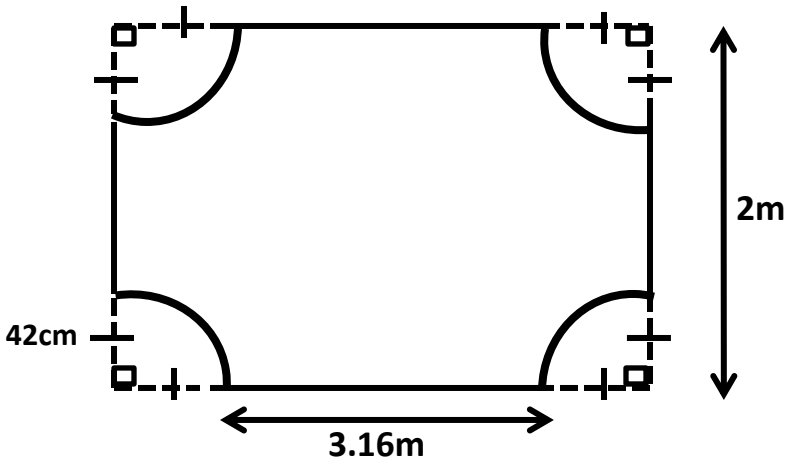
a)How much interest did the money yield at the end of 4 months?

(2marks)

b) Calculate the amount which was on his account at the end of 4 months.

(2marks)

28. The diagram below shows how the top of the dining table was designed.
The part shown by dotted lines is not part of the table.
Study it carefully and use it to answer the question that follows.



Find the area of the dining table. ***(6marks)***

29. A book costs thrice as much as a fountain pen.
Fatuma paid sh.4,500 for a book.
a) How much does a fountain pen cost? ***(2marks)***

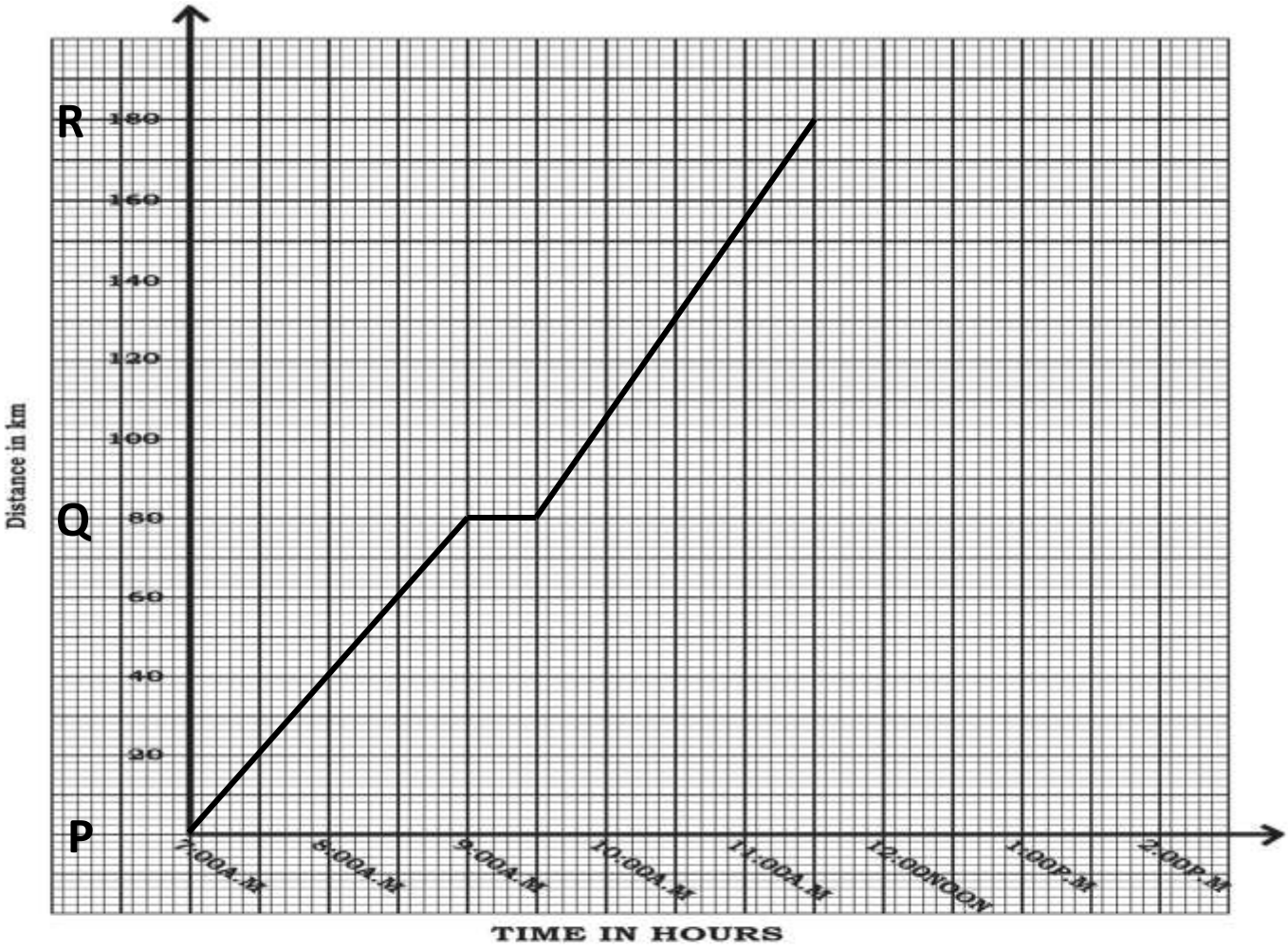
b) How much did she pay for the two items? ***(2marks)***

30. A cylindrical water tank of capacity 43.12 litres and height of 70cm was fixed with a cover of the same base area.
Find the area of the cover. ***(5marks)***

31. Using a pair of compasses, ruler and a pencil only,
a)construct a triangle KLM where line KL = 7cm, angle MKL =60° and line KM = 6cm. ***(4marks)***

b) Measure line ML = ...cm ***(1mark)***

32. The graph below shows how a cyclist travelled from town P to town R through town Q.
Study it carefully and use it to answer the questions that follow.



a)At what time did the cyclist reach town R? ***(1mark)***

b) For how long did he rest at town Q? ***(1mark)***

c) Calculate the average speed for the whole journey. ***(2marks)***

END