



UGANDA NATIONAL EXAMINATIONS BOARD
PRIMARY LEAVING EXAMINATIONS
2020
MATHEMATICS

Time allowed : 2 hours 30 minutes

Index No.	Random No.					Personal No.		

Candidate's name:

Candidate's Signature:

School Random No.

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 **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: $473 + 312$

2. Write 27,040 in words.

.....
.....

3. Circle all the triangular numbers in the list below.

4, 5, 6, 7, 8, 9, 10

4. Given that the subsets of set Q are; $\{m\}$, $\{k\}$, $\{m, k\}$, $\{ \}$, find $n(Q)$.

5. Write 5,834 in standard form.

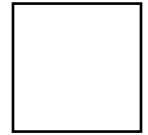


6. A taxi left Kampala for Gulu at 10:00pm. The journey took 5 hours. What time did the taxi arrive in Gulu?
7. Using a protractor and a ruler, draw an angle of 145° in the space below.
8. Given that $m = 5$, $n = 3$ and $r = -2$, find the value of $\frac{mn}{n-r}$.
9. Change 9.85 kilogrammes into grammes.

Turn Over

10. A box contains 5 blue and 6 red pens. A pen is picked at random from the box. Find the probability that the pen picked is blue.

11. Solve: $3y = 5$ (finite 7)

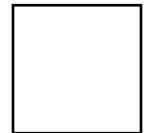
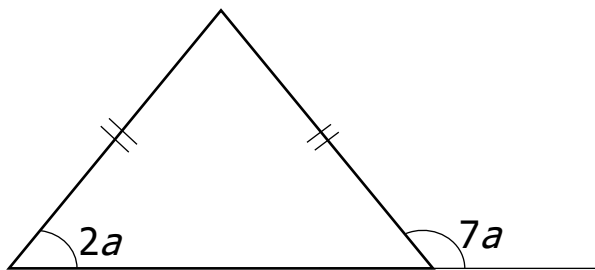


12. Find the lowest common multiple (LCM) of 18 and 30.

13. Workout: $9.8 \div 0.07$

14. Auma sold two cocks for sh 70,000 making a profit of sh 12,000. If both cocks cost the same price, find the price Auma bought each cock.

15. Find the value of a in degrees in the diagram below.



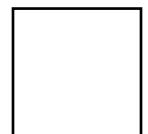
16. The ratio of male workers to female workers in a factory is 2:3. There are 30 male workers in the factory. Find the total number of workers in the factory.

17. Solve: $\frac{5}{6}K - 7 = 3$

18. Find the mean of the following numbers: 4, 7, 8, 5.

19. The diameter of a bicycle wheel is 70cm. Find the distance it covers in two complete revolutions. (Use $\pi = \frac{22}{7}$)

20. An aeroplane flying at an average speed of 260Km/h from airport *E* to airport *N* took 45 minutes. Calculate the distance between the two airports.



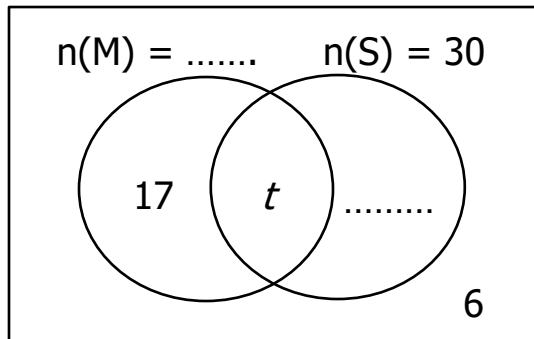
SECTION B: 60 MARKS

Answer **all** the questions in this Section

Marks for each question are indicated in brackets

21. In a class party, two types of drinks were served, soda (S) and mineral water (M). 30 pupils took soda and t pupils took both soda and mineral water, 6 pupils took neither of the drinks while 17 pupils took only mineral water. The number of pupils who took soda only was twice that of those who took both soda and mineral water.

- (a) Use the given information to complete the Venn diagram below. (02 marks)

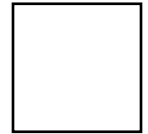


- (b) Find the number of pupils who took both drinks. (02 marks)

- (c) Calculate the total number of pupils in the class. (02 marks)

22. Convert 103_{five} to base two.

(04 marks)



23. The list below shows prices of different items in a certain shop.

- 2 kg of sugar cost sh 6,800
- 500 g of posho cost sh 1,600
- 1 kg of beans cost sh 3,000
- 3 bars of soap cost sh 10,500

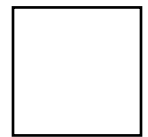
(a) How much money will Opio pay for 3 kg of sugar? *(02 marks)*

(b) Nakitto buys 1 kg of beans, $1\frac{1}{2}$ kg of posho and 3 bars of soap.
How much does she pay? *(03 marks)*

24. Kapere deposited sh 750,000 in a bank. The bank offers a simple interest at a rate of 18% per year. After some time, Kapere had an amount of sh 885,000 in the bank.

(a) Find the interest Kapere earned. *(02 marks)*

(b) Calculate how long the money was in the bank. *(03 marks)*



25. Using a ruler and a pair of compasses only,

(a) Construct triangle JKL where $JK = 6.5\text{cm}$, angle $LJK = 30^\circ$ and angle $JKL = 105^\circ$. *(04 marks)*

(b) Measure the length LK. _____ cm *(01 mark)*

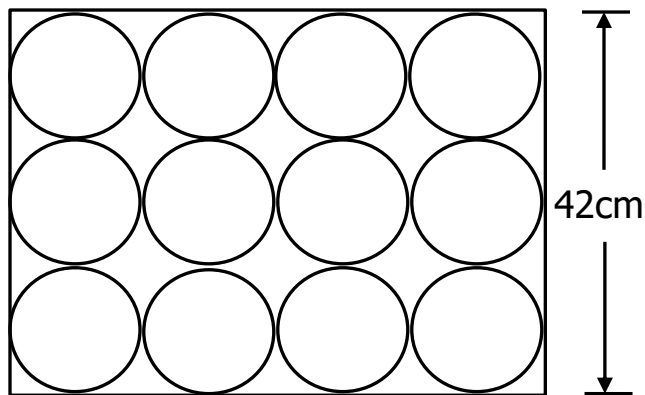
26. The timetable below shows the journey of a bus from Mbale to Kampala through Tororo, Bugiri, Iganga and Jinja. Study the table and use it to answer the questions that follow.

Town	Arrival time	Departure time
Mbale		09 00 hours
Tororo	09 30 hours	09 45 hours
Bugiri	10 25 hours	10 30 hours
Iganga	11 50 hours	12 00 hours
Jinja	13 30 hours	13 40 hours
Kampala	14 30 hours	

- (a) Convert the arrival time of the bus at Tororo into 12 hour clock.
(01 mark)
- (b) How long did the bus take to travel from Jinja to Kampala?
(01 mark)
- (c) The distance from Mbale to Kampala is 275Km. Calculate the average speed of the bus for the whole journey.
(03 marks)



27. Lukwago cut out circular cards from a rectangular manilla paper whose width is 42cm as shown in the diagram below. Study the diagram and answer the questions that follow.

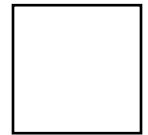


- (a) Find the length of the manilla paper. *(02 marks)*
- (b) Calculate the area of the pieces of the manilla paper that remained.
(Use $\pi = \frac{22}{7}$) *(04 marks)*

28. In a school, the fraction of the boys is $\frac{1}{5}$ more than that of girls. The school has 280 girls.

(a) Find the fraction of the girls in the school. *(02 marks)*

(b) Calculate the total number of pupils in the school *(02 marks)*



29. The interior angle sum of a regular polygon is 1800° .

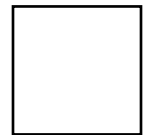
(a) Calculate the number of sides of the polygon. *(02 marks)*

(b) Find the size of each exterior angle of the polygon. *(02 marks)*

30. A water tank with a capacity of 4,800 litres was $\frac{3}{4}$ full. Some of the water was sold using 20 - litre jerrycans at sh 200 each. After selling the water, $\frac{1}{6}$ of it remained.

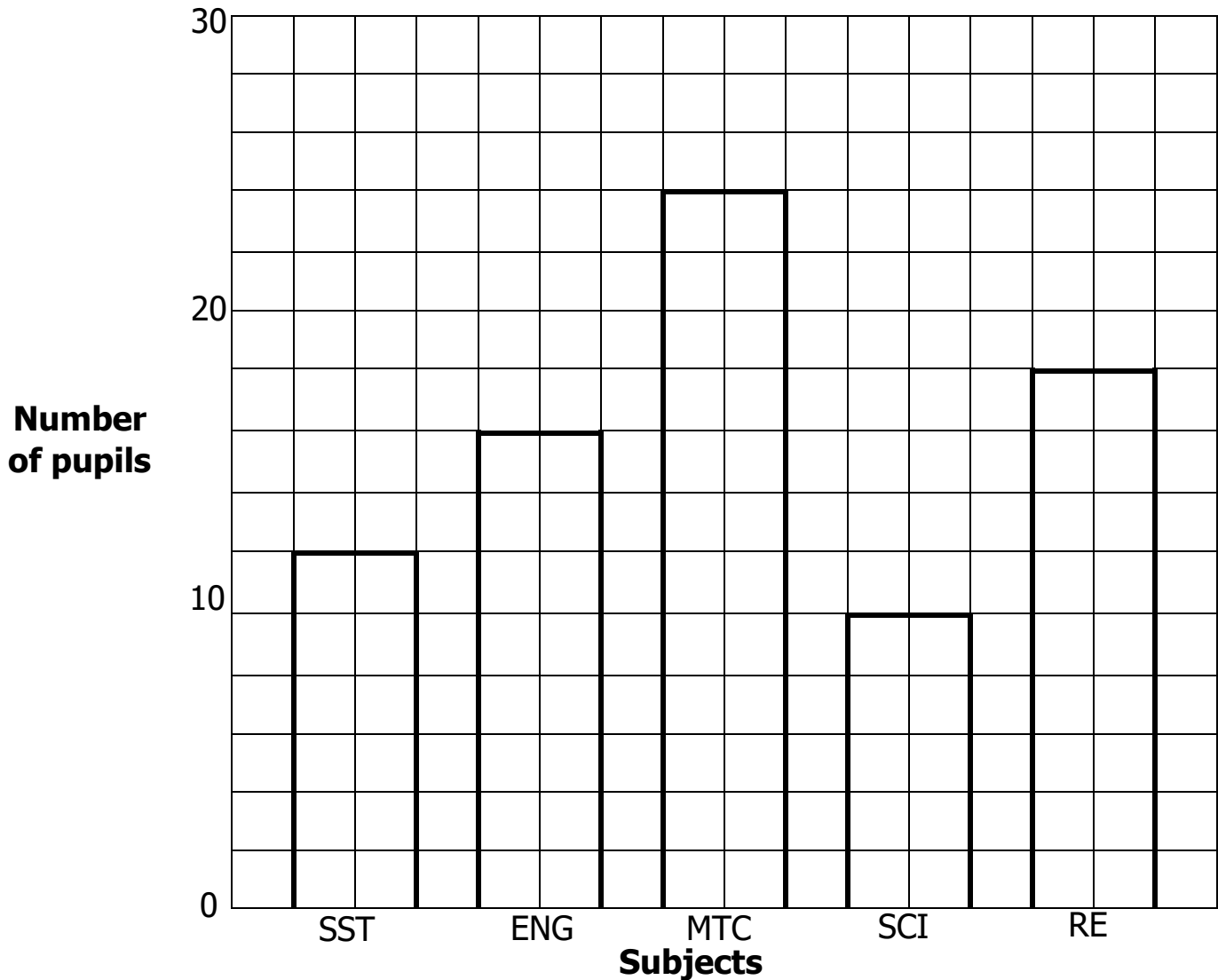
(a) Find in litres, the amount of water which was sold. *(04 marks)*

(b) Calculate the amount of money earned from the sale of the water. *(02 marks)*



31. A book costs three times as much as a pencil. A pen costs sh 300 more than a pencil. If a book costs as much as a pen and a pencil, find the cost of a book. *(04 marks)*

32. The bar-graph below shows the number of pupils in a class and their best liked subjects. Study the graph and use it to answer the questions that follow.



(a) Which subject is liked by fewer pupils? *(01 mark)*

(b) How many pupils liked Mathematics best? *(01 mark)*

(c) Calculate the total number of pupils in the class. *(02 marks)*

(d) Find the percentage of pupils who liked English best. *(02 marks)*

