



# BETTER EDUCATIONAL CONSULTANCY

## PRE-PRIMARY LEAVING EXAMINATION

SET TWO, 2022

### 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** of **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.
3. Answer **all** questions. **All** answers to both sections **A** and **B** must be written in the spaces provided.
4. All answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil 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**.
6. Do not fill anything in the table indicated: **"for examiner's use only"** and boxes inside the question paper.

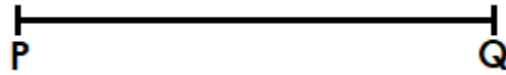
#### FOR EXAMINER'S USE ONLY

Qn. No	MARK	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**

1. Work out:  $42 \times 3$
2. Express 546 in Roman numerals.
3. Given that  $n(B) = 8$  and  $n(D) = 7$  and  $n(B \cap D) = 3$ , find  $n(B \cap D)'$ .
4. Simplify:  $7^8 - 7^6$
5. Work out the mean of  $(2f + 4)$ ,  $(f - 3)$  and  $(3f + 11)$ .
6. Simplify:  $8(a - 2) - 3(a + 2)$
7. Using a ruler, a pencil and a pair of compasses only, bisect the line segment PQ below.





8. Simplify:  $1\frac{1}{2} - \frac{5}{12}$

9. A waiter served a full bottle of mirinda fruity to dinners using glasses of size illustrated below. How many guests did she serve if all the soda was served?

**Soda**



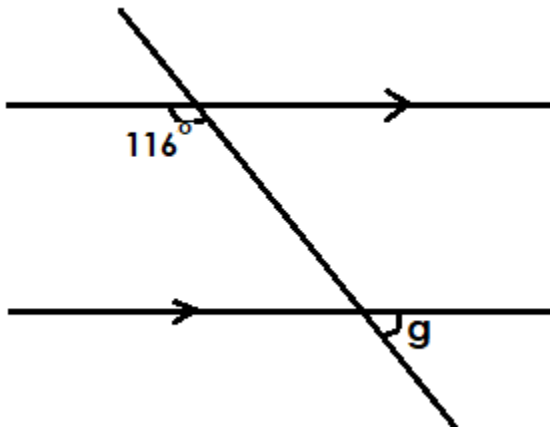
**Glass**



10. There are 40 pencils in a bag of which some are red and others are blue. If the probability of picking a blue pencil is  $\frac{3}{8}$ , how many red pencils are in the bag?



11. In the figure below, find the value of  $g$ .



12. Work out:  $10110_{\text{two}} - 1111_{\text{two}}$

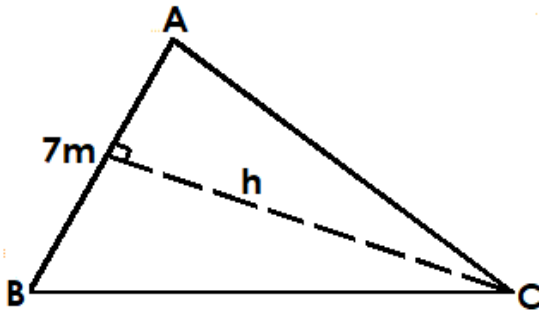
13. An athlete covered a distance of 100m in 20 seconds. Calculate the speed of the athlete in Km/h.

14. Find the square root of  $1^{24/25}$

15. The ratio of boys to girls in a P.7 class is 7:8. If there are 35 boys, how many girls are in the class?



16. The area of triangle ABC below is  $28\text{m}^2$ . If  $AB = 7\text{m}$ , find the value of  $h$ .



17. A bus leaves Masaka at 15 44 hours and reaches Buwama after 1 hour 45 minutes. At what time does the bus reach Buwama?
18. Write the solution set for  $6 \leq 2y \leq -4$

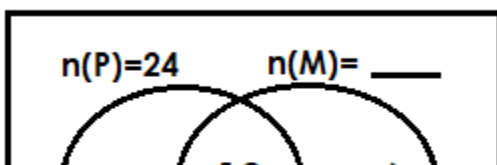
19. Hussein bought a bag containing 300 oranges for sh. 45,000. He sold the oranges for sh. 250 each. How much profit did he make?
20. The average mass of six girls is 50 kg. If the lightest girl is left out, the average mass of the other five is 53 kg. Find the mass of the lightest girl.

**Section B: 60 MARKS**

- 21(a). Simplify:  $3a^3 \times 4a^5$  (2 marks)

- (b). Expand 25.692 using powers of ten. (2 marks)

22. In a P7 class, 24 pupils drink Pepsi cola(P),  $(y + 6)$  drink Mirinda (M) only, 13 drink both pepsi cola and mirinda while  $(y - 4)$  drink neither of the two types of soda.
- (a). Use the information above to complete the Venn diagram below. (2 marks)



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- (b). Given that the number of pupils who drank only mirinda is thrice those who drank none of the two drinks, find the value of  $y$ .

(3 marks)



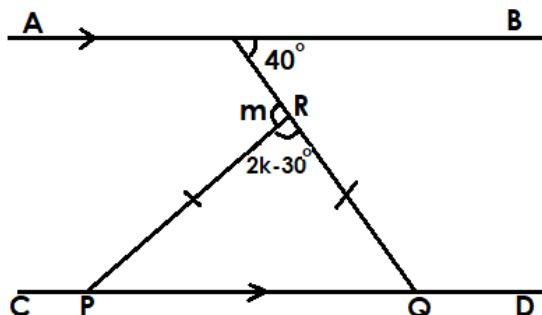
23(a). Simplify:  $2\frac{1}{4} \times 2\frac{2}{3} \div 1\frac{4}{5}$

(3 marks)

- (b). Six men can dig a farm in 12 days. How many more men are needed to dig the farm in 8 days?

(2 marks)

24. In the figure below, AB is parallel to CD and PQR is an isosceles triangle. Study the figure and use it to answer the questions that follow.



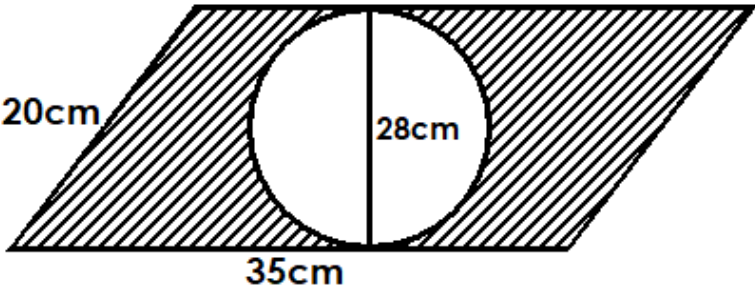
- (a). Find the value of  $k$ .

(3 marks)

(b). Find the size of angle **m**. (2 marks)



25. Find the area of the shaded part in the diagram below. (Take  $\pi = \frac{22}{7}$ ) (5 marks)



26. The table below shows the rate at which Centenary Bank buys and sells different currencies.

Use it carefully to answer the questions that follow.

Currency	Selling in UGX	Buying in UGX
1 British Pound (£)	4,400	4,490
1 Rwandese Franc	3.8	4.0
1 US dollar (\$)	3,750	3,800

a) How many British Pound Sterling does Joel get from Ug sh. 1,616,400?



(2 marks)

- b) The cost of a Samsung curved flat screen is Rwanda Francs 400,000. Find the cost of the same item in US dollars.

(3 marks)

- 27(a). Using a pencil, a ruler and a pair of compasses only, construct a triangle CDE in which



CD = 7.5cm, angle ECD =  $45^\circ$  and angle CDE =  $75^\circ$ .

(4 marks)

- (b). Measure the length of DE.

(1 mark)

28. A motorist left town P at 6:50am and drove at a speed of 80km per hour for  $2\frac{1}{2}$  hours to town Q. He rested for 1 hour and then drove to town R at a speed of 65km per hour for 2 hours.

(a). How far is town R from town P? (3 marks)

(b). Calculate the average speed of the motorist for the whole journey. (2 marks)

(c). At what time did the motorist reach town R? (1 mark)

29 (a). Solve:  $2n - 4 = \frac{n}{3} + 6$

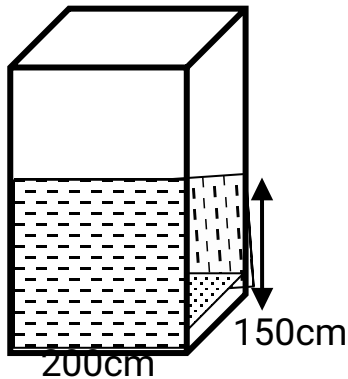
(3 marks)

(b). A mother is twice as old as her son John. Find the difference between their age if the mother is 48 years old. (2 marks)

30. The tank below contains 2100 litres of water. Use it to answer the questions that follow.

a) Calculate the height of the water in the tank.

(3marks)



b) If the tank is  $\frac{2}{5}$  full, how many litres are needed to fill the tank?

(3marks)



31. In a school, there are 10% more boys than girls.

(a). If there are 198 girls, what is the total number of pupils in the school?

(3marks)

(b). Find the ratio of girls to boys in its simplest form.

(2marks)

32. The table below shows marks scored by P7 candidates in a series of Science Pre PLE tests administered at school.

<b>Score</b>	<b>90</b>	<b>60</b>	<b>70</b>	<b>80</b>
<b>Number of Candidates</b>	<b>1</b>	<b>y</b>	<b>3</b>	<b>2</b>

a) Given that the mean score of their marks is 70, find the value of y.  
(3 marks)

b) How many candidates scored below 80 marks?

(2 marks)