THE PRIME EXAMINATIONS 2023

Prime Consult

PRIMARY SEVEN BEGINNING OF TERN II
MATHEMATICS (Abridged Curriculum)

Time allowed 2 hours 30 minutes

INDEX NO: **Random No.** | **Personal No.**

Candidate's Name:..

Candidate's Signature:..

School; ....

District ID No.: ....

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. The paper has 9 printed **pages**.

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 easily be read may lead to **loss of marks.**

7. Do not fill anything in the table indicated "For Examiners' use only", and those boxes inside the question paper.

Section A. (40 Marks)

1. Shade M ∩ N in the diagram below.
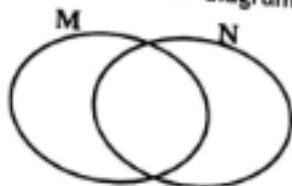
2. Write in figures: Seventy nine thousand, thirty six.

3. Write 154 in Roman numerals.

4. Simplify: $^+6 - ^-4$

5. Change 1101_{two} to base ten

6. Solve: $3(4 - 2x) = 18$

7. Work out: $13 + 1.24$

8. Find the next number in the following sequence:

125, 64, 27, _____

9	Given that p = 3, q = ˉ6 and r = ˉ2. Find the value of $\frac{pq}{r}$	10	In a class of 60 pupils, 40 are boys and the rest are girls. Find the probability of picking a girl from the class.

11 Use a ruler, a pencil and a pair of compasses only to construct an angle of 45° in the space below.

12	A farmer borrowed sh.600,000 from a bank at a simple interest rate of 10% per year. Calculate the interest the farmer paid after 6 months.	13	Expand 6538 using powers of ten.

14 In the triangle below, find the size of angle marked p in degrees.
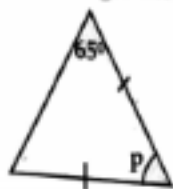
15 A football match started at 3:30pm and ended at 5:20pm. How long did it last?

16 Four mangoes cost sh.6000. Find the cost of five such mangoes.

17 Calculate the mean of

16, 30, 10, 14, 10.

18 Increase 800 bags of coffee by $12\frac{1}{2}\%$.

19 Find the volume of the cuboid below if the area of the shaded part is 48cm².

5cm

20 Given that set Q = {3, e, t,}. List all the subsets of set Q.

Section B. (60 Marks)

21 <u>Study and complete the shopping table below.</u> (05 marks)

Item	Quantity	Unit cost	Amount
Rice	2kg	sh.5500 per kg	sh _____
Sugar	_____	sh.4600 a kg	sh. 2300
Beans	1500g	sh.4800 per kg	sh. _____
Ghee	_____ kg	sh. 8000 a kg	sh. _____
Total cost			sh. 26500

22 (a) Work out: 1110_{two} (02 marks)

$$+111_{two}$$

_____

(b) Solve: $203_n = 300_{five}$ (03 marks)

23 The mean of the numbers 11, 26, a + 7, 13 is 15.
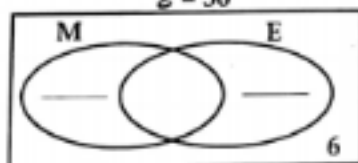
(a) Find the value of a. (03 marks)

(b) Find the range of the numbers.

24 In a class of 56 pupils, 33 like maths (M), 27 like English (E), 2h like both subjects while 6 do not like any of the two subjects.

(a) Complete the Venn diagram.   (02 marks)

$\varepsilon = 56$

(b) Find the value of h.   (03 marks)

25 Three schools Mengo, Buhehe and Bbaale shared text books in the ratio 4:2:3 respectively. If Bbaale got 540 textbooks,

(a) how many books did they share altogether?   (03 marks)

(02 marks)

26 | With the help of a ruler, a pencil and a pair of compasses only, construct a triangle ABC where $\overline{AB} = \overline{BC} = $ 7cm and angle ABC = 120º.   (.. marks)

(i) Measure angle BAC.   (01 mark)

27 | (a) Work out: 2 + 6 = _____ (finite 7)   (02 marks)

(b) If today is Wednesday, what day of the week was it 39 days ago? (03 marks)

CS CamScanner

28 Study the cuboid below and answer the questions.

y +4cm

y +2cm

y +1cm

2y +1cm
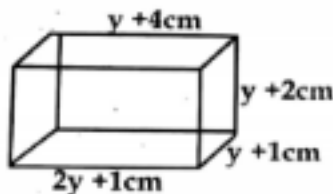
(02 marks)

(a) Find the value of y.

(03 marks)

(b) Calculate its volume.

9 A car travelling at a speed of 80km/hr left town P at 11 : 40a.m and reached town Q after 2 hours and 30 minutes.

(a) At what time in 12 hour clock did it reach town Q?　　　(02 marks

(b) Calculate the distance covered.　　　(02 mar

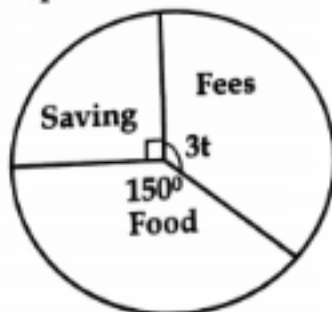(c) Write 12:30 a.m in 24 hour clock. (01 mark)

30 (a) Solve: $3t - 20 = \frac{2t}{5}$ (03 marks)

(b) Achieng is twice as old as Akumu. Their total age is 36 years.
How old is Akumu? (02 marks)

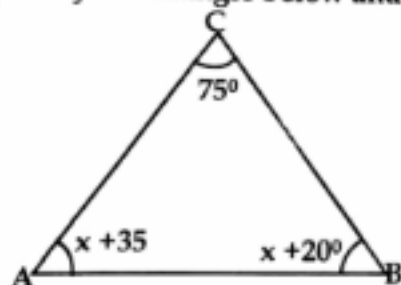31 The pie chart below shows how Mr. Bubulo spends his monthly income.

(a) Find the value of t. (02 ma

(b) If Mr. Bubulo saves sh.180,000, how much money does he earn monthly?

(03 marks)

32 | Study the triangle below and answer the questions that follow.

(a) Find x.   (03 marks

(b) Find the size of angle ABC.   (02 mai