BBROAD EXAMINATIONS®
P.6 MATHEMATICS EXAMINATION
END OF TERM III 2023

Time allowed: 2 hours 30 minutes

Pupil's Name:...

School Name: ....

District Name: ....

Read the following instructions carefully:

1. This paper is made up of two sections: A and **B**.

2. Section A has **20** questions (40 Marks)

3. Section B has **12** questions (60 Marks)

4. Answer ALL questions in both sections A and B.

5. All answers must be written in the space provided in blue or black ball point pens and ink. Only diagrams should be done in pencil.

6. Unnecessary crossing of answers will lead to loss of marks.

7. Any handwriting, which cannot be easily read, may lead to loss of marks.

8. Do **not** fill anything in the boxes indicated for Examiners' use only.

Teacher's comment to the learner

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Approved by:

Team Head Mathematics Dept.

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1. Divide: $10 \div 2$	2. In the space below, draw a cylinder.
3. Express $2\frac{3}{5}$ as an improper fraction.	4. Find the next two numbers in the sequence below. 4, 8, 12, 16, _____, _____
5. Find the highest number of children who can share 12 mangoes or 18 mangoes with no remainder.	6. Given that A-B = {4, 6, 7}, A∩B= {2,3} and B-A = {8, 0,5}. Find n(AUB).
7. Sarah and Jonah shared sh.1800 equally. How much money did each get?	8. Work out: $5 + 7$

Using a ruler, measure the line segment below.
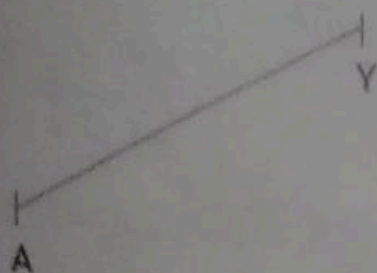
10. The table below shows the weight of a baby for the first 4 months after birth.

Month	0	1	2	3	4
Weight in kg	3	4	5	5	6

Represent the information on the graph below.
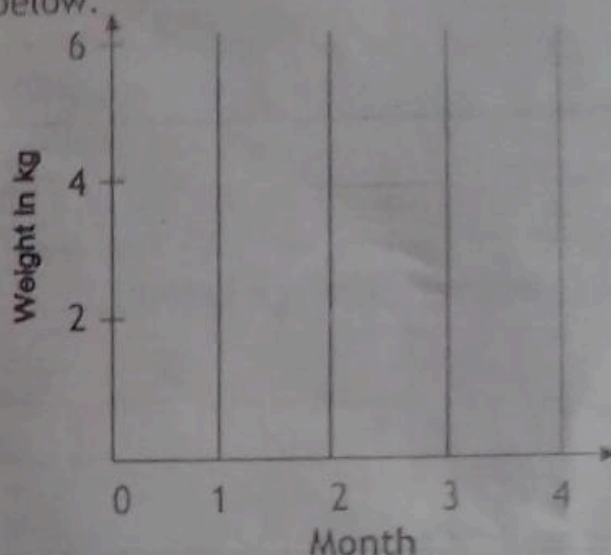
11. Show the time "nine o'clock" on the clock face below.
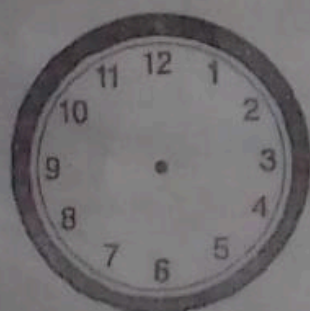
12. How many cups each of capacity 500ml can be got from a 3litre jug?

13. There were 40 pupils in our school last year. This year, the number decreased by 10%. How many pupils are in our school this year?
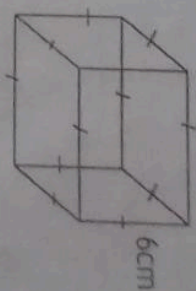
14. A set has 64 subsets. How many elements are in the set?

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15. Using a ruler, a pencil and a pair of compasses only, construct an angle of 45°	16. Show 123₁₀ on the abacus.
17. The temperature on the top of a hill dropped by 10°C to -5°C. Find the original temperature before.	18. Work out the volume of the cube below. 6cm
19. In a line of pupils, Nellic is the 10ᵗʰ from one side and the 21ˢᵗ from another side. How many pupils are in the line?	20. A parent covered a distance of 8 km in 40 minutes. Find his average speed.

SECTION.B. (60 Marks)

21. In a village of 65 farmers, 40 grow groundnuts (G), 30 grow maize (M), y grow both crops while 8 farmers grow other crops.

(a) Complete the Venn diagram below to show the above information.

n(ε) = 65

n(G)   n(M)

(y)
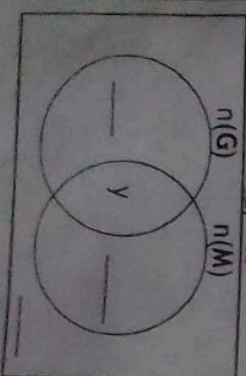
(b) How many farmers grow both crops?

(c) If a farmer is selected from the village at random, find the probability that the farmer grows groundnuts only.

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22. (a) Expand 4068 using place values.

(06 Mark)

(b) What number is expanded below
80000 + 900 + 80 + 5?

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23. On a poultry farm, 0.6 of the birds are layers and the rest are broilers. If there are 200 broilers;

(a) How many birds are on the farm?

(04 Mark)

(b) Find how many broilers are less than layers on the farm.

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24. Study the number line below and answer questions that follow.

(05 Mark)
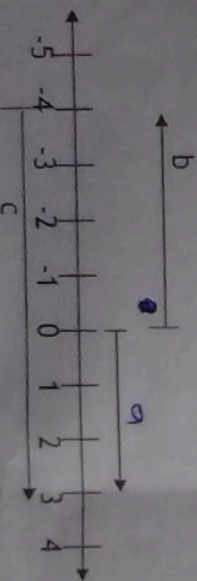
(a) Write the integer shown by arrows;

a=

b=

c=

(b) What mathematical sentence is shown the above number line?

25. (a) Using a ruler, a pencil and a pair of compasses only, construct a triangle PQR where PQ = 6 cm, angle PQR = 90° and QPR = 30°
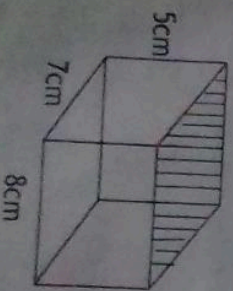
(a) Measure angle PRQ.

26. Kenneth went to a shop and bought the following items:
3 bic pens for sh. 600 a pen
6 exercise books for sh. 1200 a book
500g of salt for sh.1000
2½ litres of milk for sh. 600 per half litre cup
Find his total expenditure.

(05 Marks)

27. Study the cuboid below and answer questions that follow.

5cm

7cm

8cm

(05 Marks)

(a) Work out the area of the shaded part.	(b) Calculate the total length of all its edges. (05 Marks)

28. A, B and C contributed money in the ratio 3:4:5 respectively to start a business. If A, B and C contributed sh.3,600,000. How much money did each contribute?

(05 Marks)

29. The clock faces below show departure and arrival time of a bus from town N to town M.

Departure from town N (morning)

Arrival to town M (evening)

(a) If its average speed was 40 km/hr, how far is town M from town N?

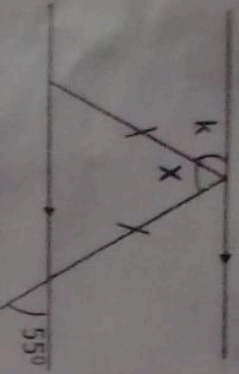(b) At what time did the bus;
(i) leave town N?

(ii) reach town M?

(06 Marks)

(a) Solve for x, $2(x-5)=8$

(b) Peter is three times as old as Sam. If the difference between their ages is 22 years, how old is Sam?

(05 Marks)

Two angles X and 45° are supplementary. Find the value of X.

(b) What is the value of angle k in the figure above?

(04 Marks)

A man used $\frac{1}{3}$ of his income to buy food, $\frac{1}{4}$ to pay rent and the rest to pay fees. Using a radius of 3 cm, construct an accurate pie chart to show this information.

(05 Marks)

END