SURE KEY EXAMINATIONS BOARD

PRIMARY SIX QUALITY CHECK THREE

2023

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Admission No.						**Personal No.**		

Pupil's Name: .....

Pupil's Signature: .....

School Name: .....

District Name:.....

Read the following instructions carefully:

1. Do not forget to write your **school** and **district name** 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 **12 printed pages** 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 easily be read may lead to loss of marks.
7. Do not fill anything in the table indicated: **"For Examiners' Use only"** and boxes

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. Workout: 305 ÷ 5.

2. Write in figures. Ten thousand two hundred six.

3. Given that PUQ = {the first 10 counting numbers},
   P∩Q = {Prime numbers between 2 and 10}
   Q – P = {Even numbers between 1 and 8}.
   List all members of P – Q.

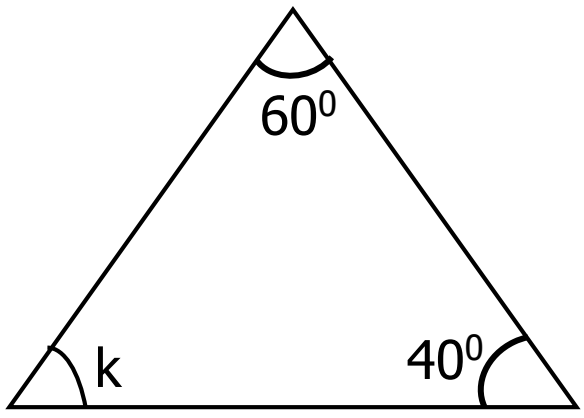
4. Deborah scored $\frac{8}{10}$ in a test. Express Deborah's score as a percentage.

5. Simplify 8 + 8 ÷ 8.

6. What number has been expanded to give;

$(8 \times 10^{2}) + (3 \times 10^{0}) + (5 \times 10^{-2})$

7. In the figure below. Find the value of **k** in degrees.



8. How many groups of 100 can be got from the value of 8 in the number 28479?

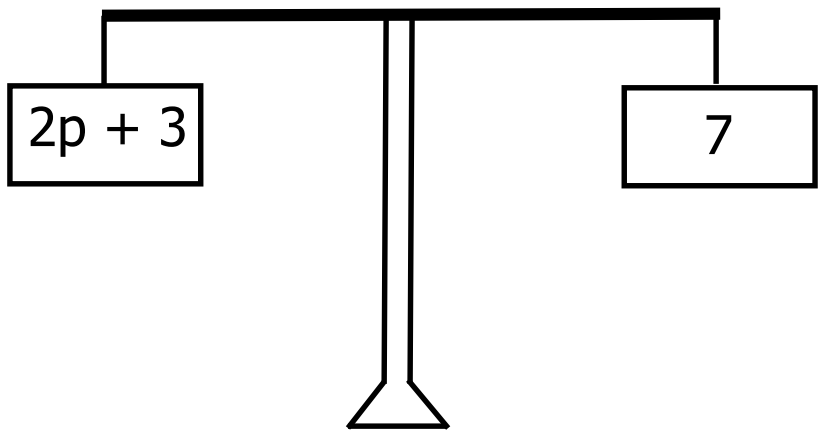
9. Workout the square root of 0.36.

Turn Over

10. Using a pair of compasses, a ruler and a sharp pencil only, construct the complement of 30^0 in the space provided below.

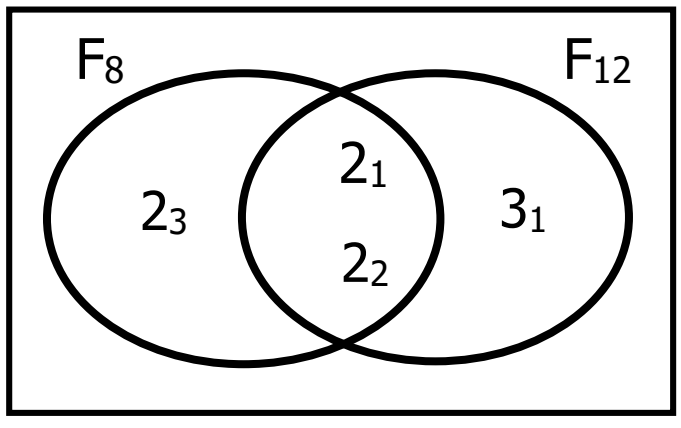
11. The probability that Julius will pass the exams is 0.6. What is the probability that Julius will fail the exams?

12. Study the diagram below and use it to find the value of **p**.



13. On a certain day, Agnes sold 5000 millilitres of milk from the 20 litre Can she was given to sell. How many litres of milk remained in the Can?

14. Use the Venn diagram below to find the LCM of F_8 and F_{12}.



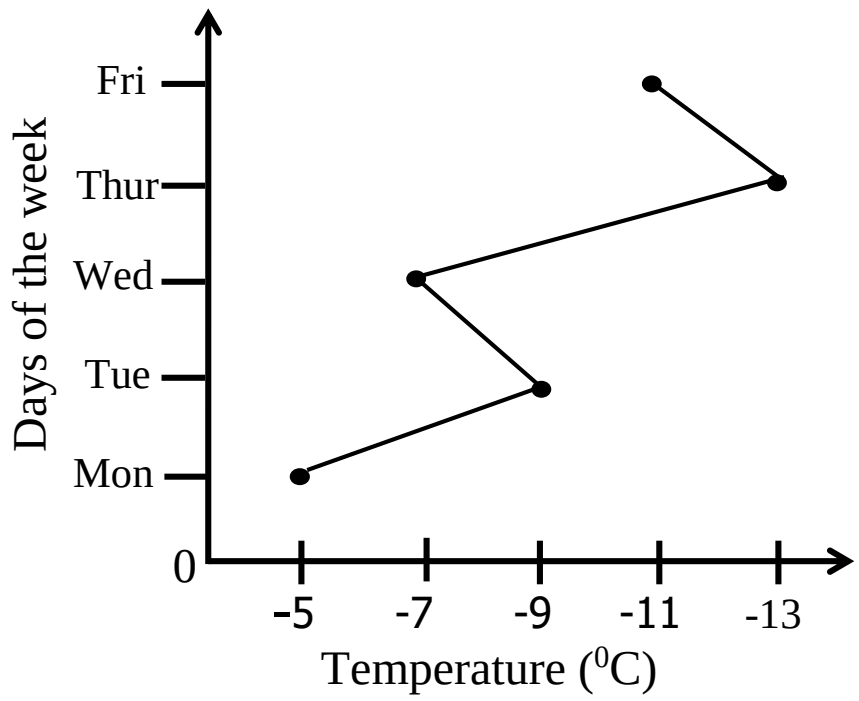
15. During a church service, a pastor read the Bible in the book of Genesis from page 8 to page 15. How many pages did the pastor read?

16. In a class of 20 pupils, $\frac{2}{5}$ of them are absent. How many pupils are present?

17. Seven books cost sh.4,900. Find the cost of 5 similar books.

18. Workout: $\frac{3}{7} - \frac{2}{5}$.

19. The graph below shows the weekly classroom temperatures that were recorded by the P.7 learners.



Workout the classroom temperature range during that week.

20. Calculate the area of a circle whose radius is 28cm. (Use $\pi = \frac{22}{7}$)

SECTION B: 60 MARKS

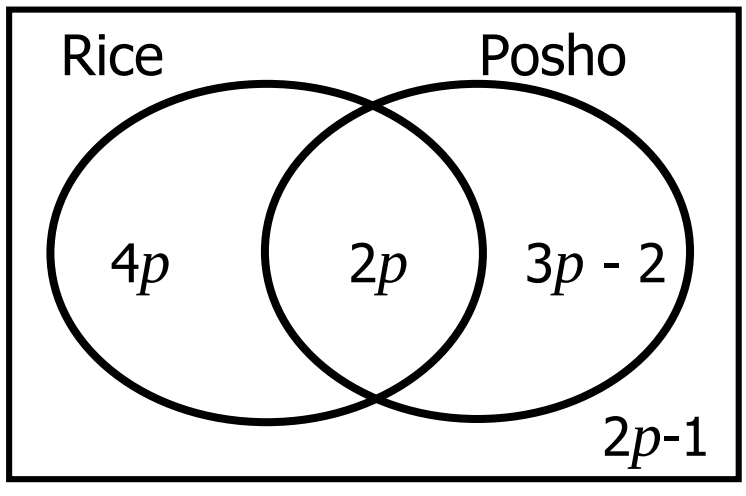
Answer **all** questions in this section

Marks for each question are indicated in brackets.

21. (a) Express 13_{ten} to binary base. (02 Marks)

(b) Given that $31_p = 41_{six}$. Find the value of P (03 Marks)

22. The Venn diagram below shows the number of pupils who eat different types of food at Villa Road Primary School, Masaka .



(a) Given that 17 pupils dislike rice, find the value of p. (02 Marks)

(b) How many pupils like rice but not posho? (01 Mark)

(c) How many pupils dislike posho? (02 Marks)

Turn Over

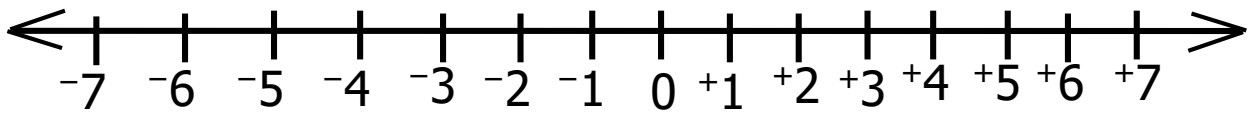
23. Andrew went shopping and bought the following items as shown in the table below.

(a) Complete the table below. (04 Marks)

Item	**Qty**	**Unit cost**	**Total cost**
Sugar	$1\frac{1}{2}$kg	Sh. 3000	Sh……
Rice	3kg	Sh……	Sh. 10500
Milk	4 litres	Sh……	Sh……
Total Expenditure			Sh. 23000

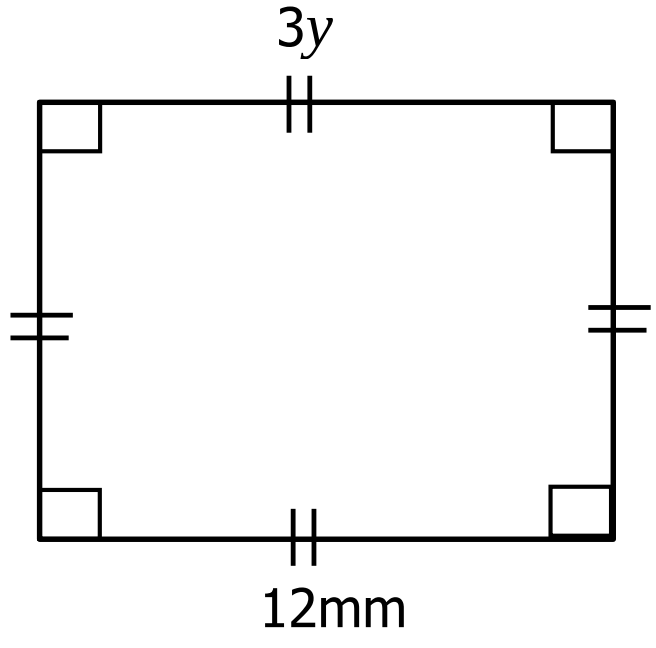
(a) If he had three notes of sh.10,000. How much was her change.
(01 Mark)

24. (a) On the numberline below, workout $^{+}4 + {}^{-}3$. (03 Marks)



(b) If today is Friday, what day of the week will it be after 24 days?
(02 Marks)

25. Study the figure below and use it to answer questions that follow.



(a) Find the value of y. (02 Marks)

(b) Find the area of the figure above. (02 Marks)

(c) Calculate the perimeter of the figure. (02 Marks)

26. Josephine a juice seller sold 60 litres of juice in 3 days. Each day she sold 2 more litres than the previous day. How many litres of juice did she sell on each of the 3 days? (04 Marks)

Turn Over

27. In a 10km Marathon race that started at 9:00a.m, James crossed the finishing line after running for $2\frac{1}{2}$ hours.

(a) At what time did James cross the finish line? (02 Marks)

(b) Calculate his average speed for the whole Marathon. (02 Marks)

28. The table below shows marks scored by pupils in a weekly test.

Marks scored	80	70	55	75
No. of pupils	3	2	1	4

(a) How many pupils did the test? (01 Mark)

(b) How many pupils scored above the mean mark? (03 Marks)

(c) Find the modal mark of the pupils. (01 Mark)

29. Edmond spends $\frac{1}{2}$ of his salary on transport, $\frac{1}{4}$ on school fees and banks the rest.

(a) What fraction of his salary does he spend? (02 Marks)

(b) What fraction does he bank? (02 Marks)

(c) If he earns Sh.450,000 monthly, how much does he bank? (02 Marks)

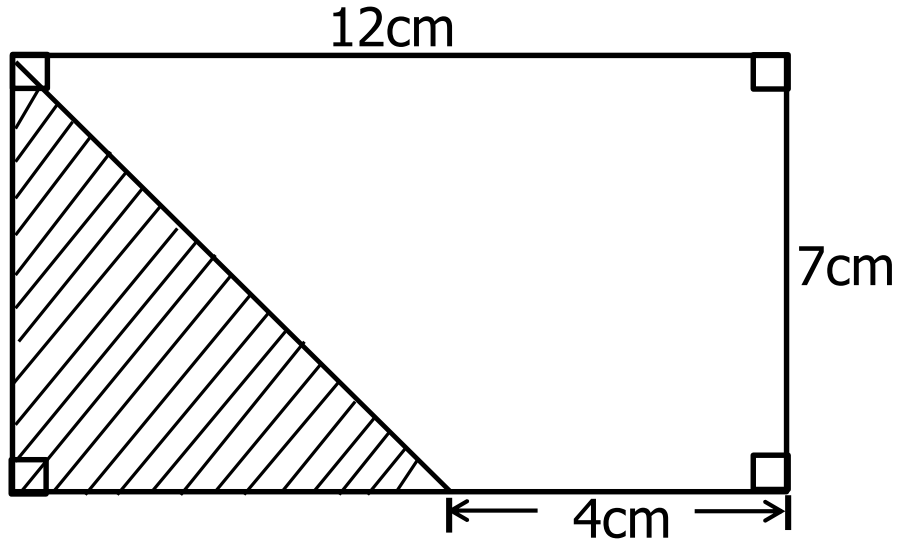
30. A mother is three times as old as his son. If their total age is 48 years.

(a) How is old is the son? (03 Marks)

(b) How old is the mother? (02 Marks)

Turn Over

31. Study the figure below and use it to answer the questions that follow.



(a) Find the area of the shaded part. (03 Marks)

(b) Find the area of the unshaded part. (03 Marks)

32. (a) A factory packs 40 boxes of pens in a carton. Each box contains 50 pens. How many pens are in a carton? (02 Marks)

(b) Workout 456 x 12 using the lattice method. (02 Marks)

END