

SURE KEY EXAMINATIONS BOARD PRIMARY LEAVING UNIQUE SET EXAMINATION 2022

MATHEMATICS

Time Allowed: 2 hours 30 minutes

| Admission No. | | | Per | csonal | No. | | |
|---------------|--|--|-----|--------|-----|--|--|
| | | | | | | | |

| Candidate's Name: |
|------------------------|
| Candidate's Signature: |
| School Name: |
| District Name: |

Read the following instructions carefully:

- **3**
- 1. Do not forget to write your **school** and **district name** on this paper.
- This paper has two sections: A and B. Section A has 20 questions and Section B has 12 questions. The paper has 15 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

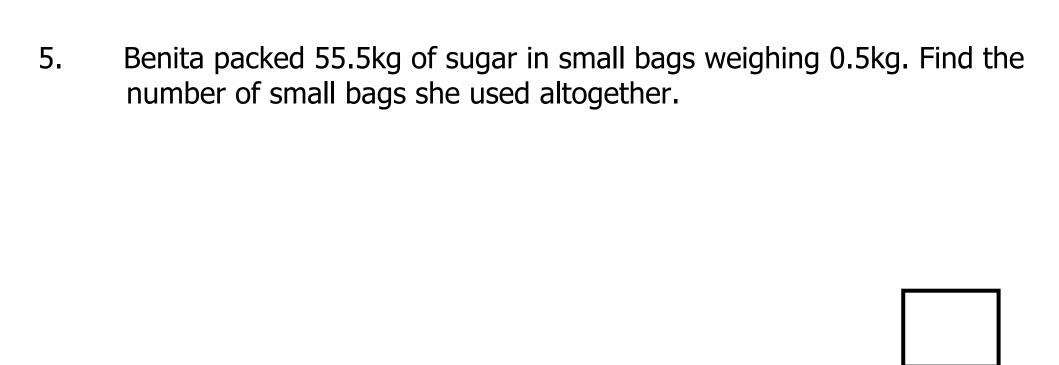
Answer **all** questions in this Section Questions **1** to **20** carry two marks each

1. Subtract: 100 – 99.

2. Round off 59.97 to the nearest whole number.

3. Simplify: 0.9×0.6

4. Workout the square of the next number in the sequence below.



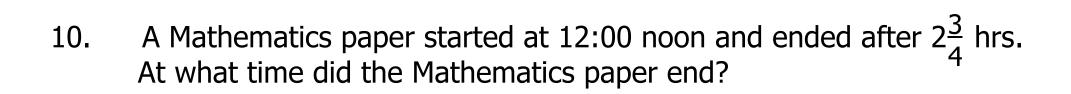
6. Given that 4 mangoes cost Sh.2,000. Find how many mangoes would one buy with Sh.6,000.

7. Calculate the average of: 4x, 8, 6 and 2x.

8. Workout: $110_{two} \times 11_{two}$.

9. Write in figures: 'Three hundred thirty three thousand thirty three'.

3





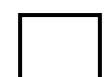
11. What is the smallest number divisible by either 6 or 7?

12. Find the solution set for x: -3 < x < 8.

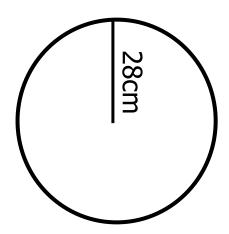
13. Given that Set $R = \{m, o, p, q\}$, how many subsets are in set R?

14. A square room is 3.6 metres long. What is its area?

15. Simplify:
$$\frac{1}{4}$$
 (4 + 12b)



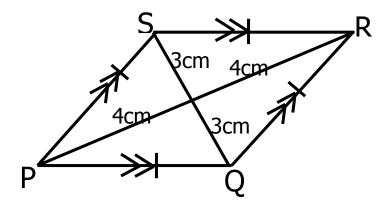
16. Find the circumference of the figure below.



17. With the help of a ruler and a pair of compasses only, construct an angle of 30° .

19. The Ministry of Education and Sports supplied 2800 textbooks last year. This year the supply decreased by 800 books. In what ratio has the supply decreased?

20. The diagonals of the rhombus below are 8cm and 6cm respectively. Calculate the perimeter of the rhombus.



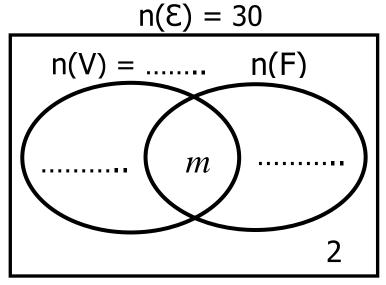
SECTION B: 60 MARKS

Answer **all** questions in this section

Marks for each question are indicated in brackets

21. In a class of 30 pupils, 20 play Volleyball (V), 15 play Football (F) m play both Volleyball and Football and 2 do not play any of the two games.

(a) Use the information above to complete the Venn diagram below. $n(\mathcal{E}) = 30$ (03 Marks)



(b) Find the number of pupils who play only one game. (02 Marks)

22. (a) Uganda became politically independent from Britian in 1962. Write the year in Roman numerals. (02 Marks)

(b) What number has been expanded to give (03 Marks) $(2 \times 10) + (5 \times 1) + (4 \times \frac{1}{10}) + (1 \times \frac{1}{100}) + (6 \times \frac{1}{1000}) + (8 \times \frac{1}{10000})?$



23. (a) The area of a Trapezium is 120cm² and its height is 10cm. Find the length of one of the parallel sides if the second one is 10cm. (03 Marks)

(b) $A = \frac{1}{2}h(a+b)$. Find the value of A if b = 6cm, h = 9cm and a = 10cm. (02 Marks)

24. (a) In the space below, use a ruler, pair of compasses and a sharp pencil only to construct a triangle EFG, where EF = 7cm, angle EFG = 120° and FG = 6cm.

. (04 Marks)

25. (a) Solve:
$$\frac{m+1}{3} + \frac{m}{4} = 2$$
. (03 Marks)

9

(b) Solve for q: $\frac{2}{6} q^2 = 12$. (03 Marks)

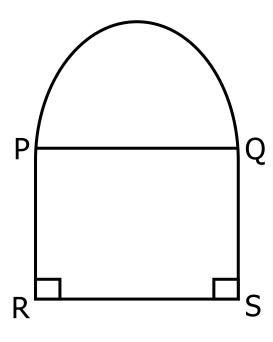
- 26. Matovu went to the market with 3 ten thousand shilling notes and bought the items shown on the table below.
 - (a) Study it carefully and complete it. (04 Marks)

| Item | Unit cost | Quantity | Total cost |
|-------------|--------------|----------|------------|
| G.nuts | ************ | 2kg | Sh.7,000 |
| Maize flour | Sh. 3,000 | 2½kg | Sh |
| Millet | Sh. 2,500 | | Sh.7,500 |
| Milk | Sh. 12,000 | litres | Sh.6,000 |
| 7 | Sh | | |

(b) Calculate how much Matovu paid for the items if she was given a discount of Sh.8,000. (02 Marks)

| ./. | 30% (a) | of Mukasa's cattle are calves and 55% are cows. What is the percentage of bulls? | (02 Marks |
|-----|---------|---|--------------------------|
| | (b) | If he had 480 heads of cattle, how many calves doe | s he have? (03 Marks) |
| | (c) | If he sells off 25% of the bulls and 15% of the calve many animals will remain? | es, how (02 Marks) |
| | | | |

28. The diagram below shows a metallic door to be fixed at the entrance of the church. If PQRS is a square of sides 3m.

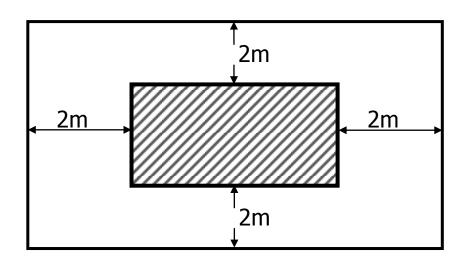


(a) Find the area of the semi-circle in cm². (Use $\pi = \frac{22}{7}$) (03 Marks)

(b) Find the area of the square in cm². (02 Marks)

(c) What is the total area of the metallic sheet in m² the welder used to make this door? (02 Marks)

29. The figure below shows a sitting room covered with a carpet leaving a space of 2 metres on either sides of the wall.



(a) What is the actual length and width of the carpet? (02 Marks)

(b) Calculate the area uncovered by the carpet. (02 Marks)

30. (a) Write 2310hrs in the 12-hour clock time. (02 Marks)

| | (b) | Change 9:40 p.m. to 24-hour clock. | (02 Marks) |
|-----|--------------|--|------------|
| 31. | 12:3 stop | otorist left Town A at 10:30 a.m. and reached Town B 0 p.m. driving at an average speed of 60km/h. She m over at Town B for 1½hrs and thereafter continued t speed of 40km/h for 3 hours. | ade a |
| | (a) | How far is Town C from Town A? | (03 Marks) |
| | | | |
| | | | |
| | | | |
| | (b) | Calculate her average speed for the whole journey. | (03 Marks) |

| 32. | | Tap A fills a tank in 3 minutes and Tap B fills the same tank in <i>t</i> minutes. | | | | |
|-----|-----|--|--|---------------------------|--|--|
| | (a) | If the two taps fill value of t . | of the tank in one minute. | Find the (03 Marks | | |
| | (b) | If 280 litres of water Find the capacity of th | er is filled by the two taps in of the tank. | one minute. (03 Marks) | | |
| | | | | | | |

15 END

