SUREKEY EXAMINATIONS BOARD

PRIMARY FIVE QUALITY CHECK III

2023

MATHEMATICS GUIDE

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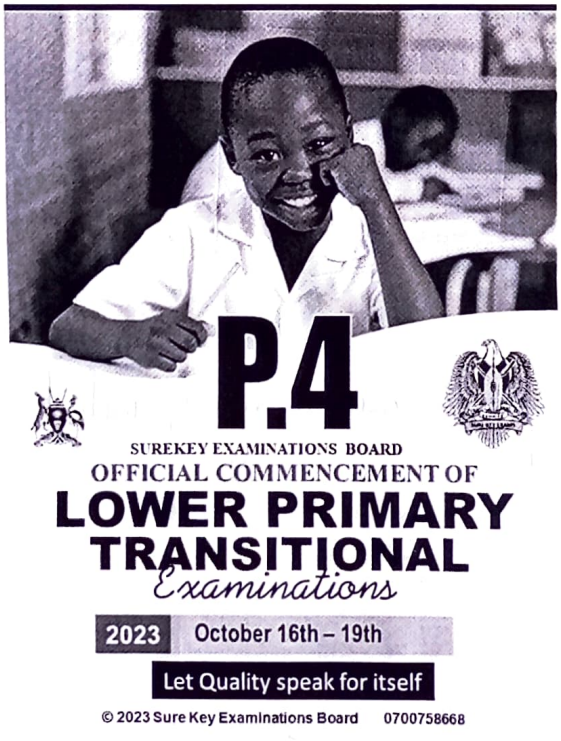
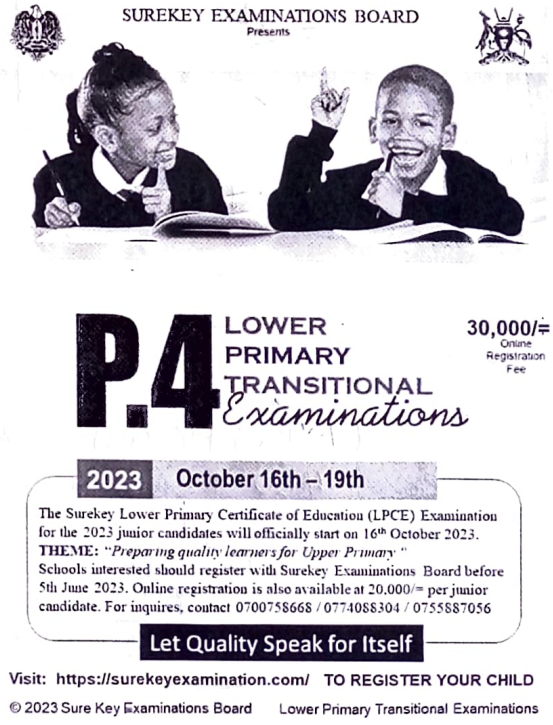




"Don't speak for Quality, Let the Quality Speak for itself"

SECTION A: 40 MARKS

Answer **all** questions in this Section

Questions **1** to **20** carry two marks each

1. Workout: 17 + 121

$$\begin{array}{r} 121 \\ +\ 17 \\ \hline 138 \end{array}$$

2. What is the place value of 3 in the number 24.432

T o t h th
24.432
↳ Hundredths

3. Given that Set B = {q, r, s}. How many subsets can be got from Set B?

Set B = {3 elements}

Subsets
$= 2^n$
$= 2^3$

$(2 \times 2) \times 2$
4×2
$= 8$ subsets

4. Workout: $^{0}\cancel{1}^{2}011_{two}$ − 111_{two}

0100_{two}

5. What number has been expanded to give

$(4 \times 10^2) + (6 \times 10^1) + (2 \times 10^0)$.

462 has been expanded

$(4 \times 100) + (6 \times 10) + (2 \times 1)$
$400 + 60 + 2$

$$\begin{array}{r} 400 \\ +\ 60 \\ \hline 462 \end{array}$$

6. Solve for p: $3p + 4 = 13$.

$3p + 4 - 4 = 13 - 4$

$3p = 9$

$\frac{3p}{3} = \frac{9}{3}$

$p = 3$

7. In a box there are 5 blue pens, 6 black pens and 4 green pens. What is the probability of picking a black pen from the box at random?

Total
5+6+4
15pens

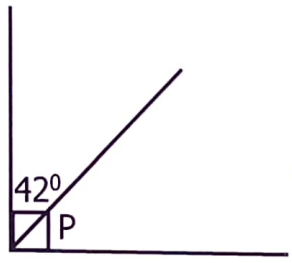
Chances = 6

Sample space = 15

Probability = $\frac{\text{chances}}{\text{Sample Space}}$

$= \frac{6}{15}$

8. In the figure below, Find the value of **P** .



$P + 42^\circ = 90^\circ$

$P + 42^\circ - 42^\circ = 90^\circ - 42^\circ$

$P = 48^\circ$

9. Find the value of P.

$4 + 3 = P \pmod 6$

$7 = P \pmod 6$

$7 \div 6 = 1 \text{ r } 1$

$P = 1 \pmod 6$

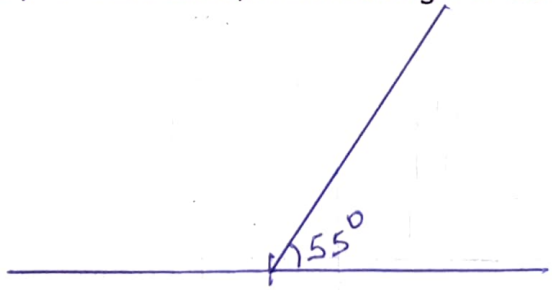
10. A driver moved at a speed of 75km/hr for 3hours. Find the distance he covered.

Distance = Speed x Time

= 75 x 3

= 225 km

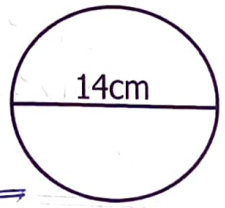
11. In the space provided below, draw an angle of 55^0.



12. A trader bought a phone at sh.65000 and sold it at sh.70000. Find the trader's gain.

Gain = S.P - B.P
= sh. 70,000 - sh. 65000
= sh. 5000.

13. Given that a radius is half way of the line in a middle of the circle. Find the radius of the circle below.



Radius = $\frac{1}{2} \times 14^{7}$
= 7cm

14. Musa a seller of milk had 40 litres of milk and sold it using small bottles each measuring $\frac{1}{2}$ litres. How many full bottles of milk did he sell?

Big ÷ Small
$40 \div \frac{1}{2}$
$= 40 \times \frac{2}{1}$
= 80 bottles of milk.

15. Workout : $2\frac{2}{3} \div \frac{1}{4}$

$2\frac{2}{3}$
$\frac{(3\times2)+2}{3}$
$= \frac{8}{3}$

$\frac{8}{3} \div \frac{1}{4}$
$= \frac{8}{3} \times \frac{4}{1}$

$= \frac{32}{3}$
$= 10\frac{2}{3}$

16. Joan was born in 1994 and died in January, 2023. Write Joan's age before dying in Roman Numerals.

$^{1}\cancel{2}^{11}\cancel{0}213$
-1994
29

Years in Roman numerals
20 + 9
↓ ↓
XX IX

XXIX years

17. Patrick reached home at 6:20p.m. If he left school at the time shown on the clock face below. For how long did he stay on the way?

$$\begin{array}{r} {}^{5}\cancel{6}\,{}^{60}:20 \\ -\ 3\ 55 \\ \hline 2\ 25 \end{array}$$

80−55 = 25

He stayed on the way for 2 hours and 25 minutes

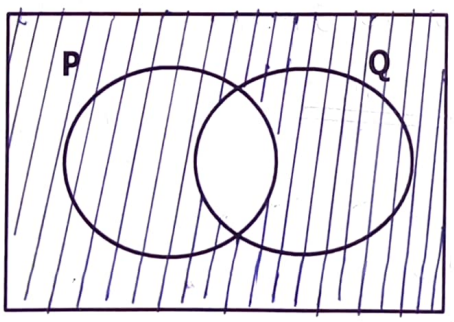
18. Workout the product of the missing prime numbers in the sequence below.

7, ...11...., 13, 17, 19, ...23....

Product

$$\begin{array}{r} 23 \\ \times 11 \\ \hline 23 \\ +\ 23 \\ \hline 253 \end{array}$$

19. Shade the complement of P ∩ Q in the Venn diagram below.



20. Round off 4506 to the nearest hundreds.

$$\begin{array}{r} 45\,\cancel{06} \\ +\ 0\,\lrcorner \\ \hline 4500 \end{array}$$

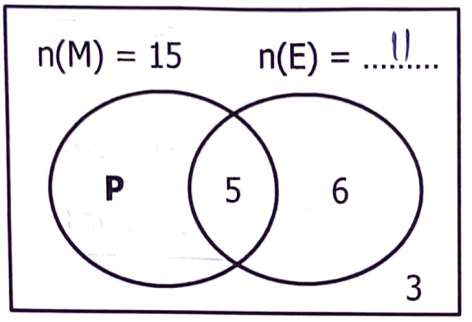
4506 ≈ 4500

SECTION B: 60 MARKS

Answer **all** questions in this section

Marks for each question are indicated in brackets.

21. Study the Venn diagram below and use it to answer the questions that follow.



(a) Find n(E) (01 Mark)

5+6

= 11

(b) Find the value of **P**. (02 Marks)

P+5 = 15

P+5-5 = 15-5

P = 10

(c) How many pupils dislike Mathematics? (01 Mark)

6+3

= 9pupils

(d) How many pupils are in the whole class? (02 Marks)

P+5+6+3

(10+5)+(6+3)

15 + 9

= 24pupils

22. (a) What is the G.C.F of 12 and 8 (02 Marks)

2	12	8
2	6	4
	3	2

GCF = 2 × 2
= 4

Mthd II

$F_{12} = \{1, 2, 3, 4, 6, 12\}$
$F_8 = \{1, 2, 4, 8\}$
$CF = \{1, 2, 4\}$
GCF = 4

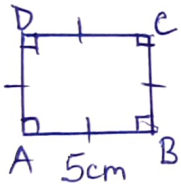
(a) Find the smallest number of sweets when shared by 12 boys and 15 girls leaves no remainder. (03 Marks)

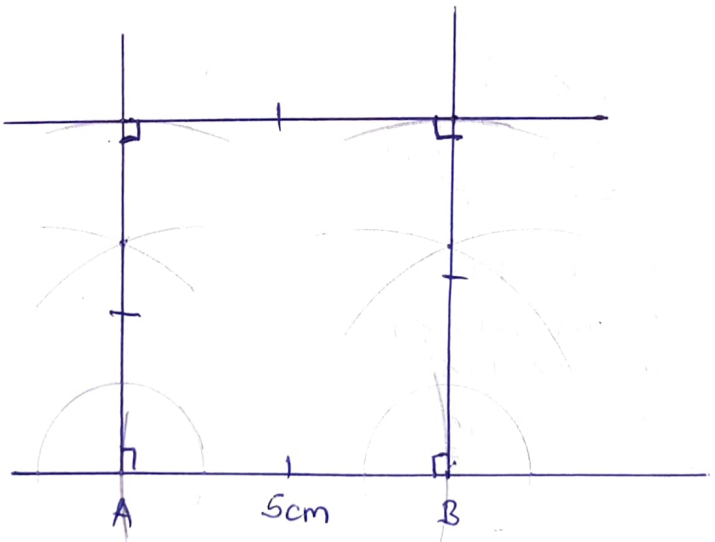
2	12	15
2	6	15
3	3	15
5	1	5
	1	1

$(2 \times 2) \times (3 \times 5)$
4×15
= 60 sweets

23. (a) Using a ruler, a pencil and a pair of compasses, construct a Square ABCD of sides 5cm. (04 Marks)

Sketch.





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

Area = S × S
= 5 × 5
= 25 cm^2

24. (a) Workout: (02 Marks)

Week	Day
15	6
+ 4	5
10	4

6+5 = 11
11 ÷ 7 = 1 r 4

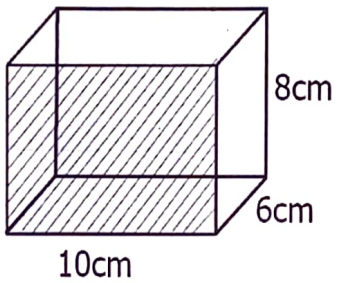
(b) Subtract. (02 Marks)

HR	MIN
~~6~~7	60 25
- 4	50
2	35

85 - 50 = 35

25 + 50 = ~~75~~
~~85~~ ÷ ~~60~~ = 1 r 15

25. (a) Study the figure below and use it to answer questions.



(a) How many more edges than vertices has the figure above? (01 Mark)

12 - 8
= 4 more edges

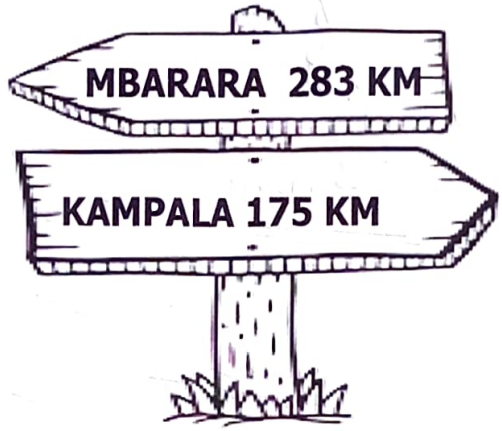
(b) Find the perimeter of the shaded face. (02 Marks)

P = L + H + L + H
P = (10 + 8) + (10 + 8)
P = 18 + 18
P = 36cm

(c) Find the total sum of all edges of the figure. (03 Marks)

Total sum
(10 + 6) + (8 + 10) + (6 + 8) + (10 + 6) + (8 + 10) + (6 + 8)
= 16 + 18 + 14 + 16 + 18 + 14
= 96cm

26. The sign post below was found on the roundabout in Masaka on Masaka Mbarara Highway.



(a) Calculate the total distance from Kampala to Mbarara. (02 Marks)

$(283+175)km$

$458\ km$

(b) Convert the total distance from Kampala to Mbarara to metres. (02 Marks)

$1km = 1000m$

$458km = (458 \times 1000)km$

$= 458000m$

27. Deborah was 11 years three years ago and Denis will be 11 years in three years time.

(a) Find their total age now. (02 Marks)

Deborah	Denis	Total age
$11+3$	$11-3$	$14+8$
$= 14$ years	$= 8$ years	$= 22$ years

(b) Simplify 2bc + 4de + 5bc - de. (02 Marks)

$2bc + 4de + 5bc - de$

$2bc + 5bc + 4de - de$

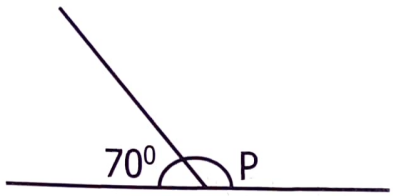
$7bc + 3de$

28. (a) Given that one right angle is equal to 90^0. How many right angles are in 270^0. (02 Marks)

$$\begin{array}{r} 3 \\ 270^\circ \\ \hline 90^\circ \\ 1 \end{array}$$

$= 3$ right angles

(b) In the figure below, find the value of P. (02 Marks)



$P + 70^\circ = 180^\circ$

$P + 70^\circ - 70^\circ = 180^\circ - 70^\circ$

$P = 110^\circ$

29. (a) Convert $10\frac{2}{3}$ into an improper fraction. (02 Marks)

$$\frac{D \times W + N}{D}$$

$$= \frac{(3 \times 10) + 2}{3}$$

$$= \frac{30 + 2}{3}$$

$$= \frac{32}{3}$$

(b) Agume had one sugarcane and ate $\frac{1}{4}$ of it in the morning and ate $\frac{1}{2}$ of it in the evening. What fraction of the sugarcane remained? (03 Marks)

Fraction ate

$$\frac{1}{2} + \frac{1}{4}$$

$$\frac{2 + 1}{4}$$

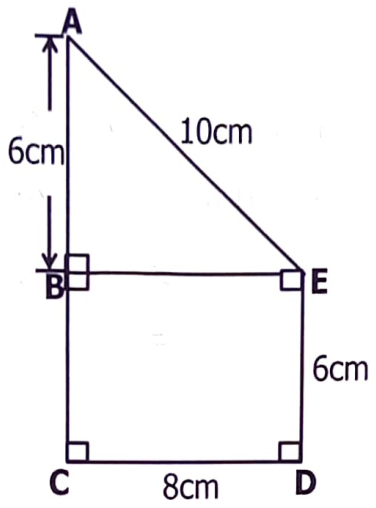
$$= \frac{3}{4}$$

Fraction that remained

$$\frac{4}{4} - \frac{3}{4}$$

$$= \frac{1}{4}$$

30. (a) Study the figure below and use it to answer questions that follow.



(a) Find the area of the figure **ABE**. (02 Marks)

$\text{Area} = \frac{1}{2} \times b \times h$

$= \frac{1}{2} \times 8 \times 6$

$= 4 \times 6$

$\text{Area} = 24\text{cm}^2$

(b) Workout the area of the figure **BCDE**. (02 Marks)

$\text{Area} = L \times W$

$= 8 \times 6$

$= 48\text{cm}^2$

(c) Find the total distance around the figure **ACDEA**. (02 Marks)

$= (6+6)+(8+6)+10$

$= 12 + 14 + 10$

$= 26 + 10$

$= 36\text{cm}$

31. (a) Convert 5000 millilitres to litres. (02 Marks)

$1000\text{ml} = 1\text{L}$

$5000\text{ml} = 5000$

1000

$= 5\text{litres}$

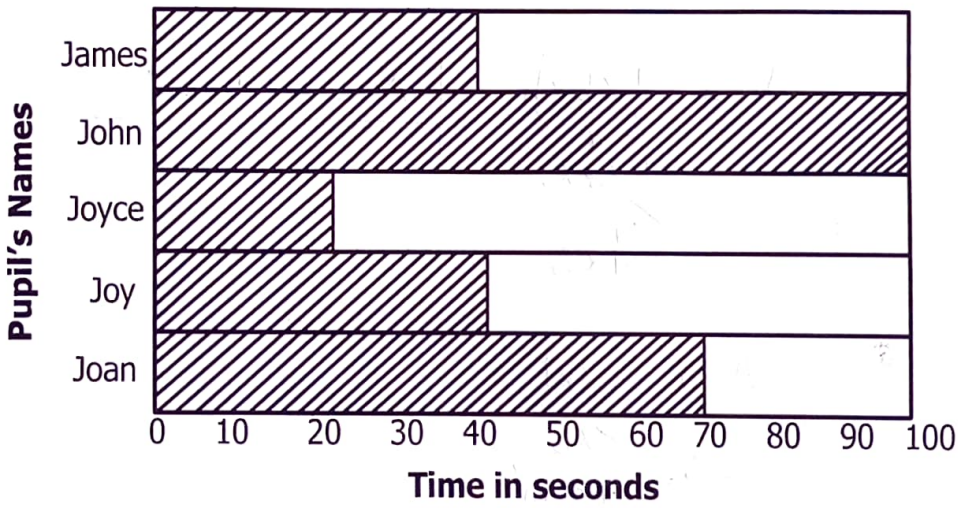
(b) A tourist had US dollars 1500 and wanted to exchange it to Uganda Shillings. If 1 US dollar is equivalent to 3850 Uganda Shillings. How much money did he get after exchanging the money? (03 Marks)

1 US dollar = Ug.sh. 3850

1500 US dollars = Ug.sh. (3850 × 1500)

= Ug.sh. 5,775,000

32. The graph below shows names of five pupils that took part in a 100 metre Race and their time. Study it carefully and answer questions that follow.



(a) Who won the race? (01 Mark)

Joyce because she used less time.

(b) Find the total time taken by the five pupils. (02 Marks)

(40 + 100) + (20 + 40) + 70

140 + 60 + 70

270 seconds

(c) Workout John's speed in metres per second? (02 Marks)

$S = \frac{D}{T}$

$= 100 \div 100$

$= \frac{100}{100}$

= 1 metre per second.

END