## SELF EXERCISE 1

1. Write the set symbol for subset of
2. $P=\{1,3,5,7,9\} K=\{2,3,5,7,11\}$ How many members are in $P \cap K$ ?
3. Given that $M=\{$ hen, bag, pencil, bookend $N=\{$ Pigeon, duck, kite, hen. Find MUN.
4. Subtract $\frac{1}{3}$ from $\frac{1}{4}$.
5. Add: $\frac{5}{17}+\frac{4}{17}+\frac{6}{17}$
6. Find the sum of the missing numbers in the sequence. $48,42,36,30$, $\qquad$ - $\qquad$ .
7. List all the factors of 36 .
8. Divide 128 by 8.
9. Find the sum of 248 books and 832 books.
10. Workout the value of 7 in the number 60798.
11. What name is given to the shape below?

12. Find the value of angle $y$ in degrees.

13. How many faces does a cuboid have?
14. Given that; Set $A=\{2,4,6,8\}$ and $\operatorname{Set} M=\{1,4,9\}$

Draw a Venn diagram to show the above sets.
15. What is the sum of the value of 3 and place value of 9 in the number 4396 ?
16. George took $31 / 2$ hours to travel from Jinja to Kampala. How many minutes did he spend travelling?
17. A party started at $3: 30 \mathrm{pm}$ and ended at $9: 50 \mathrm{pm}$. How long did the party last?
18. Find the value of $n$ in the equation. $2 n+3=23$.
19. Fill in the missing number.
$\square$ - 4 = 8.
20. Calculate the value of angle x in degrees.


## SELF EXERCISE 2

1. There are 60 pupils in P. 7 Green, $\frac{3}{5}$ of them are girls and the rest are boys. Find the number of boys in P. 7 Green.
2. Find the missing number; $\frac{4}{5}=\stackrel{12}{\square}$
3. Shade $\frac{2}{3}$ of the diagram below.

|  |  |  |
| :--- | :--- | :--- |
|  |  |  |

4. Use the Venn diagram below to answer questions that follow. Given that $F$ represents pupils who like Music (M) and Football (F).

(a) How many pupils like only Music?
(b) How many pupils like Football?
(c) How many pupils are in the whole class?
5. Divide; 760 by 10 .
6. Find the product of 409 and 73 .
7. Round off 1965 to the nearest thousands.
8. Write 0.75 in words.
9. Find the Highest Common Factor of 30 and 24.
10. At the beginning of the term, David was given 36 apples and he ate $\frac{2}{3}$ of them. How many apples did he eat?
11. Simplify; $3 y+y$.
12. Collect like terms together and simplify; $4 y+5 x+3 y-2 x$.
13. Find the value of $k ; k+3=14$.
14. If Set $\mathrm{N}=\{$ all counting numbers less than 7$\}$, how many elements are in set N ?
15. Calculate the sum of the place value of 6 and the value of 9 in the number 6798.
16. Peter bought a bag at Shs. 85,000 and sold it at Shs. 88,000 . Find his profit.
17. Subtract 679 from 8,436 .
18. With the help of a sharp pencil, ruler and pair of compasses only, construct an angle of $60^{\circ}$.
19. Find the value of $3 y$ using the figure below.

20. Add

| Hrs | Min |
| :---: | :---: |
| 3 | 50 |
| +2 | 40 |

$\qquad$

## SELF EXERCISE 3

1. Change 3 hours to minutes.
2. Add; Hrs Min

255
$+4 \quad 45$
3. Convert 5 weeks to days.
4. What number has been expanded to give $800+7000+50+9$ ?
5. Expand 326 using place values.
6. Solve for the value of $m$ in; $2 m+3=25$.
7. Simplify; $4 y+5 x+3 y+3 x$.
8. Work out $43 \times 2+18-4$.
9. Calculate the value of $P$ using the figure below.

10. Find the GCF of 8 and 12 .
11. What number has been prime factorized to give $\left\{2_{1}, 2_{2}, 3_{1}, 5_{1}\right\}$
12. Prime factorize 36 and state your answer in exponent form.
13. Simplify; $\frac{1}{4}+\frac{1}{3}$
14. Express $5 \frac{1}{13}$ as an improper fraction.
15. The Venn diagram below shows pupils who drunk Pepsi $(P)$ and Mirinda (M) at a birth day party.


How many pupils attended the birthday party?
16. Given that $H=\{m, a, n\}$. Find the number of subsets of set H by listing them?
17. Divide; 1680 by 12.
18. Find the average of $70,80,90,60$.
19. Find the value of 9 in 29468.
20. Calculate the area of the shaded part.

21. Show a half past seven on the clock face below.


## SELF EXERCISE 4

1. Subtract; 87
$\begin{array}{r}-23 \\ \hline\end{array}$
2. Share equally 3636 by 12.
3. Add; Shs. 7640
+Shs. 3360
$\qquad$
4. Draw a diagram to show that all boys (B) are males (M).
5. What number has been expanded to give $700+9000+5$ ?
6. With the help of a sharp pencil, ruler and pair of compasses only, construct an angle of $60^{\circ}$.
7. Find the value of $3 y$ in the figure below.

8. Convert 5 hours to minutes.
9. Add; | Hrs | Min |
| ---: | :--- |
| 7 | 35 |
| +1 | 55 |

## SELF EXERCISE 5 SECTION A

1. Name the geometrical figure below.

2. Work out the value of the missing angle in the figure below.

3. With the help of a sharp pencil, a ruler and a pair of compasses only, construct an angle of $90^{\circ}$.
4. Calculate the value of angle $K$ in the figure below.

5. Shade the union set on the Venn diagram below.

6. David bought a bag at shs.30,000 and later sold it at shs. 38500. What profit did he make ?
7. Solve: $y-6=14$
8. Find the LCM of 6 and 8
9. Tell the time shown on the clock face below.

10. Round off 348 to the nearest tens.

## SECTION B

11. a) Fill in the missing number.

$$
\square+14=48
$$

(b) If $a=78$ and $b=24$, find the value of;
i) $a+b$
ii) $2 b-9$
12. Arinda went to Olive's shopping mall and bought the following items.

1 kg of sugar at shs 5000
1 packet of Omo at shs 3500
1 litre of cooking oil at shs 3600
A bar of soap at shs 4000
a) How much was the most expensive item?
b) Find the cost 2 litres of cooking oil and a bar of soap.
c) If Arinda went with a twenty thousand shilling note and bought all the items on the list, how much money was his change?
13.a) Work out;

| Weeks | Days |
| :---: | :---: |
| 3 | 4 |
| +2 | 5 |

b) A swimming competition took 300 minutes. How long was the competition in hours?
c) Subtract;

> Hrs Min
$5 \quad 58$
$-3 \quad 39$

## SELF EXERCISE 6

## SECTION A

1. Find the missing odd number.
$1,3,5$,
2. How many triangles are in this pattern?

3. Fill in the missing number.
2, 4, $\square$ $8,10$.
4. Add 5 to the missing number in the sequence.

3, 6, 9, 12, $\qquad$
5. With the help of a sharp pencil and a ruler, draw a shape of a rectangle.
6. The price of a bar of soap is Shs. 3,500. How much do you pay for 5 bars?
7. Jethro bought a loaf of bread at Shs. 2,000, 2 bottles of soda at Shs. 1,200 each. How much money did he spend altogether?
8. Atwine had a note of Shs. 10,000 . He bought a book at Shs. 2,500 and a fountain pen at hs. 2,000. What was Atwine's change?
9. Ronald paid Shs. 6,000 for 2 kg of sugar. What is the cost of 1 kg of sugar?
10. Barigye bought a radio at Shs. 50,000 and sold it at Shs. 45,000 . Calculate the loss Barigye made.

## SECTION B

11 (a) Change 7 m to cm .
(b) Calculate the perimeter of the figure below.

(c) Find the area of a square whose side is 9 cm each.
12. In a group of 350 people, $\frac{3}{5}$ of the people are males and the rest are females.
(a) Find the fraction of females.
(b) How many more males than females are in the group?
13. The table below shows the marks obtained by pupils of P. 5 class in homework. Use it to answer the questions that follow.

| John | Mary | Joel | David | Anzo |
| :--- | :--- | :--- | :--- | :--- |
| 8 | 7 | 8 | 5 | 7 |

(a) Find the range of their marks.
(b) What was the median mark?
(c) Calculate the average score.

## SELF EXERCISE 7 <br> SECTION A

1. What is the complement of $36^{\circ}$ ?
2. Workout the value of the missing angle.

3. Using a pair of compasses, a ruler and a sharp pencil only construct an angle of $60^{\circ}$.
4. Workout the value of $x$ using the figure below.

5. Given that set $A=\{2,3,5\}$. List all the subsets in set $A$.
6. Kajoba had Shs. 17,000 and Kiguli had Shs. 23,000. How much money did they have altogether?
7. Solve; $p+3=15$
8. Find the sum of the first five even numbers.
9. Workout; Hours minutes

| 7 | 20 |
| ---: | ---: |
| -2 | 50 |

$\qquad$
10. Find the sum of the value of 3 and the place value of 8 in 3482 .

## SECTION B

11 (a) If $y=5, k=6$ and $m=8$, find the value of;
(i) $y+k+m$
(ii) $(y x y)-m$
(b) ykm

12(a) Gimono bought a bag at Shs. 75,000. He sold it at Shs. 86,500. Calculate her profit.
(b) If she had sold it at Shs. 73,500, what would have been her loss?
(c) Lukwago went to the bank and withdrew the following notes and coins.

Notes: Shs. 50,000 Shs. 10,000
Coins: Shs. 1,000 Shs. 500
How much money did he get from the bank?

13(a) Barigye went to Mbarara and spent their 1 week and 4 days. How many hours did he spend in Mbarara?
(b) Add; Hrs Min

435
$+1 \quad 40$

# SELF EXERCISE 8 

1. $K=\{2,4,6,8,10,12,14,16\}$
$L=\{1,4,9,16,25,36\}$
Write the common elements of set $K$ and $L$.
2. Shade the region of set $A$ union set $B$ on the Venn diagram below.

3. Use the Venn diagram below to write the members of set $Q$.

4. On the diagram below, shade $\frac{1}{3}$.

5. Find the next 2 equivalent fractions of $\frac{4}{5}$.
6. Find the difference between the missing numbers.
$1,3,10,15$, $\qquad$ , $\qquad$ .
7. Write true or false.

An odd number + an odd number = an odd number.
8. Find the product of 684 and 35 .
9. 536 sticks of chalk are used by a school every day. How many sticks of chalk are used in 8 day?
10. John ate $1 / 4$ of a sugar cane in the morning and $\frac{2}{5}$ of the sugar cane in the afternoon. What fraction of the sugar cane did he eat altogether?
11. Change 3 hours to minutes.
12. How many days are in the last two months of the year?
13. How many months make a year?
14. Given that set $M=\{a l l$ vowel letters $\}$. How many elements are in set $M$ ?
15. What number has been expanded to give $(8 \times 1000)+(6 \times 100)+(7 \times 10)+(5 \times 1)$ ?
16. Solve for $n$ if $5 n+4=34$.
17. Fill in the missing number in;

$$
\square \quad-6=12
$$

18. Use lattice method to multiply $465 \times 23$.
19. How many legs do 28 chairs have if each chair has 4 legs?
20. Calculate the value of $k$ in degrees.


## SELF EXERCISE 9

1. I have 2 notes of Shs. 1000 each. How much money do I have in total?
2. Sarah bought a packet of biscuits at Shs. 1,500 and a bar of soap at Shs. 3500. How much money did she pay?
3. A bag costs Shs. 15,000 . Find the cost of 2 similar bags.
4. The cost of a radio is Shs. 38,000 . Muntu sold it at Shs. 45,000 . Find his profit.
5. Namatovu had Shs. 38,000 and her uncle gave her Shs. 22,000 more. How much money did she have altogether?
6. Double the perimeter of the figure below.

$\qquad$
7. Calculate the area of a rectangle whose length is 12 hm and width 5 hm .
8. The distance from Sarah's home to her school is 7 km . Express that distance in metres.
9. Angume spent 42 days in India. How many weeks did he spend there?

## SECTION B

11 (a) Add; $\frac{2}{11}+\frac{4}{11}$
(b) Subtract; $\frac{3}{4}-\frac{1}{6}$
(c) Shade $1 / 2$ in the figure below.

|  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

12. Nankya scored the following marks in Math tests. 7, 4, 7, 9, 13. (a) Find her modal mark.
(b) Workout her range of marks.
(c) Calculate the mean mark.

13(a) Given the digits; 2, 9, 0 . Use the above digits to form;
(i) biggest number
(ii) smallest number
(b) Find the sum of the value of 9 and the value of 2 in the biggest number formed.

## SELF EXERCISE 10 SECTION A

1. Use the Venn diagram below to find $n(A-B)$

2. Given that $a=2, b=3$ and $e=4$, find the value of $a b-c$
3. Calculate the value of $k$ in degrees.

4. Convert $31 / 2$ hours to minutes.
5. Use the figure below to answer the questions that follow.


If John moved around the above figure five times, how many metres did he cover?

## SECTION B

6. Given that; $M=\{1,3,5,7,9\}$ and $K=\{0,2,3,4,5\}$
(a) Represent the above sets on the Venn diagram below.

(b) Find $M \cap K$
(c) Find $\mathrm{n}(\mathrm{MUK})$
7. Paul went to the market and bought the following items.

2 kg of rice of Shs. 3,600 each.
3 kg of beans at Shs. 1,500 each.
2 litres of milk at Shs. 1,600 per litre.
(a) Calculate his total expenditure.
(b) If Paul had Shs. 25,000 at first, find his change.
8. Peter scored the following marks in a series of tests. $95,92,93,97,93$.
(a) Find the range of his marks.
(b) Find the median mark
(c) Calculate the mean mark

## SELF EXERCISE 11

1. Add; $23+14$
2. Find the product of 340 and 2 .
3. Workout the sum of the value of 3 and the place value of 6 in the number 43765 .
4. What is the place value of 4 in the smallest number formed using the following digits $7,0,4$ ?
5. A football match started at 5:00pm and ended at 6:50pm. How long did it last?

6(a) Double the perimeter of the figure below.


14hm
(b) workout the area of the shaded region in the figure below.


7(a) Use the figure below to find the value of $m$.

(b) Calculate the value of K in degrees.

8. Given that $a=2, b=3$ and $c=4$, find the value of the following.
(i) $a+b+c$
(ii) abc
(c) $c \times c-a b$

# SELF EXERCISE 12 <br> <br> SECTION A 

 <br> <br> SECTION A}

1. Fill in the missing number.

$$
\square \div 6=7
$$

2. Find the value of $h$.

$$
2 h+7=15
$$

3. Simplify; $3 m+5 h+2 m-h$
4. Given that $K=5, L=4$. Find the value of $K L+6$.
5. Find the difference between the value of 3 and the value of 5 in the number 3456.
6. Multiply; $283 \times 13$
7. Draw a line segment $A B=7 \mathrm{~cm}$.
8. Subtract; $\frac{3}{4}-\frac{2}{3}$
9. Workout; $3 \longdiv { 4 8 0 }$
10. Calculate the area of the figure below.


## SECTION B

11 (a) Name the following shapes.
(i)

(ii)

(b) With the help of a sharp pencil, a ruler and a pair of compasses only, construct a square $A B C D$ whose sides measure 4 cm .
12. Mr. Masagazi used a carpet to cover the floor of his rectangular floor as shown below.

(a) Find the area of the floor. 9m
(b) Find the ${ }^{12 m}$ area of the carpet.
(c) Calculate the area of uncovered part of the floor.
13. Use the picture graph below and answer questions that follow.


Scale:
 represents 10 eggs
(a) Who got the highest number of eggs?
(b) How many eggs did Katali get?
(c) Which two pupils got the same number of eggs?
(d) How many more eggs did Kirabo get than Kajoba?

## SELF EXERCISE 13

## SECTION A

1. How many cm are in a metre?
2. A rectangular compound is 9 m long and 4 m wide. Calculate the area of the compound.
3. Given that $1 \mathrm{~km}=1000 \mathrm{~m}$. How many metres are in 5 km ?
4. Double the perimeter of the figure below.
5. 


cm
$3 \quad 77$
43
+24
$\qquad$
6. Add; $\frac{1}{2}+\frac{3}{8}=$
7. Change $21 / 4$ to an improper fraction.
8. In a class of 20 pupils, $3 / 4$ are boys. How many girls are in the class?
9. Shade $\frac{1}{3}$ in the figure below.

10. Subtract; $\frac{2}{9}$ from $\frac{2}{3}$

## SECTION B

11. The graph below shows the number of eggs picked on a farm. Study the graph and answer the questions that follow.

(a) How many eggs were collected on Thursday?
(b) How many more eggs were collected on Wednesday than Friday?
(c) On which two days were the collection the same?
(d) Find the total number of eggs collected in five days.

12(a) List down all the factors of 12.
(b) Find the multiples of 3 less than 21.
(c) Find the square of 13 .
13. Mambo bought the following items from the market. 2 loaves of bread at Shs. 4,000 each.

3 kg of meat at Shs. 8,000 per kg.
5 books at Shs. 800 each.
(a) How much money did he spend altogether?
(b) If he was given a change of Shs. 4,000, how much money did he have at first?

# SELF EXERCISE 14 

## SECTION A

1. Fill in the missing number.

2. Find the value of $y$;

$$
4 y-3=9
$$

3. Simplify; $8 x+7 m-3 x+2 m$
4. Given that $n=4$ and $p=5$, find the value of $(3 \times p)+n p$
5. Expand 4865 using place values.
6. Workout the sum of Shs. 3,500 and Shs. 700 .
7. With the help of a sharp pencil, a ruler and a pair of compasses only, construct an angle of $90^{\circ}$.
8. Add; $\frac{2}{3}+\frac{1}{6}$
9. Divide; $5 \longdiv { 4 9 0 }$
10. Calculate the volume of the cuboid below.


## SECTION B

11. Use the circle below to answer the questions that follow.

(a) Name the line OR
(b) Name point marked O .
(c) Find the length of line QP.
12. Use the figure below to answer the questions that follow.

(c) Workout the distance around the figure.
13. The graph below shows the number of eggs sold from Mr. Mpiima's poultry farm.


Days of the week
(a) Which day of the week did he have the highest number of eggs sold?
(b) How many more eggs were sold on Thursday than Tuesday?
(c) How many eggs were sold in five days?

## SELF EXERCISE 15

1. Add; $\frac{3}{5}+\frac{1}{5}$
2. Change $\frac{9}{2}$ to a mixed number.
3. What frgction is not shaded?

4. Subtract; $\frac{7}{7}-\frac{1}{2}$
5. What is $3 / 4$ of 48 books?
6. Draw tallies to represent 8.
7. Find the range of 63 and 92 .
8. The ages of six children are 5 years, 9 years, 7 years, 5 years, 6 years and 4 years. Find the age range.

9. Find the median mark of the following; $90,75,90,68,78$.

## SECITON B

11 (a) Write the smallest number and the largest number formed using 9, 0,5.
(b) Find the sum of the value of 9 and the place value of 2 in the biggest number formed.
12. David bought the following items from the shop.

2 kg of rice at Shs. 3,800 each.
3 litres of cooking oil at Shs. 1,800 each.
2 loaves of bread for Shs. 8,000.
(a) Calculate his total expenditure.
(b) If he had Shs. 25,000 at first, find his change.

13(a) Change 12 m to cm .
(b) Ad; $\mathrm{dm} \quad \mathrm{mm}$

$$
2
$$

77
$+3$ 53
(c) Calculate the area of a square garden whose side is 11 metres each.

# SELF EXERCISE 16 

## SECTION A

1. Calculate the value of $m$ in degrees.

2. Simplify; $7 x+3 y+2 x-y$
3. Draw a Venn diagram and shade G-H.
4. Workout; weeks days

46
$+5 \quad 3$
5. Double the perimeter of the figure below.


## SECTION B

6. Use the Venn diagram below and answer the questions that follow.

(a) Find $\mathrm{H}-\mathrm{E}$
(b) List all the members that are not in set E .
(c) Find $\mathrm{n}(\mathrm{E} \cap \mathrm{H})$
(d) List all the members in set EUH.
7. Joan went to the shop and bought the following items.

2 kg o peas at Shs. 4,500 per kg
2 pens at Shs. 600 each
5 books at Shs. 7,000
(a) Find her total expenditure.
(b) If she was given change of Shs. 2,800, how much money did she give to the shopkeeper?
8. The table below shows the daily attendance of 55 pupils of a P. 5 class in a certain school.
(a) Complete the table correctly.

| Day | Mon. | Tue. | Wed. | Thur. | Fri. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Present | 52 | - | 50 | 48 | 40 |
| Absent | - | 00 | - | - | 15 |

(b) Workout the average attendance for the five days.

## SELF EXERCISE 17

1. Find the next number in the sequence.
$4,8,12$, $\qquad$ .
2. Find the LCM of 6 and 8 .
3. James bought 2 kg of sugar at Shs. 4,000 each and a bar of soap at SHS. 3,500. How much money did James spend altogether?
4. A trader bought a bull at Shs. 260,000 and sold it at Shs. 350,000. Calculate the profit made by the trader.
5. Calculate the area of a square whose side is 9 dm each.
6. At a party, $\frac{2}{5}$ of the people were males and the rest were females. If there were 80 people altogether;
(a) What fraction were females?
(b) How many males were in the party?
(c) How many more females than males attended the party?
7. Okuni went to the supermarket and bought the following items;

2 kg of sugar at Shs. 3,500 each.
3 kg of beans at Shs. 2,000 per kg.
4 litres of milk for 4,000/=.
(a) Calculate his total expenditure.
(b) If he was given a change of Shs. 3,000, how much money did he have at first?

8(a) Using a ruler, pair of compasses and a sharp pencil only, construct an equilateral triangle where $\mathrm{PT}=\mathrm{TR}=\mathrm{PR}=6 \mathrm{~cm}$.
(b) Measure angle P .

1. Write in figures: Nine thousand forty two.
2. Express 49 as a Roman numeral.
3. What number has been expanded to give; $(7 \times 1000)+(8 \times 10)+(9 \times 1)$.
4. Workout; $409 \times 73$.
5. Mr. Mugabi gave out 760 stickers to 10 pupils. How many stickers did each pupil get?
6. Given that $R=\{11,13\}$. List all the possible subsets that can be formed from set $R$.
7. Set $K$ has all vowel letters. Find $n(K)$.
8. Workout the GCF (Greatest Common Factor) of 12 and 20.
9. List down all the multiples of 9 between 40 and 70 .
10. Express $\frac{37}{8}$ as a mixed fraction.
11. Calculate the size of angle n in degrees.

12. Find the cost of 8 oranges at Shs. 500 each.
13. Solve; $y+2=11$.
14. Simplify; $y+2 x+4 y+7 x$.
15. If $a=8$ and $b=12$, find the value of $a+b$.
16. If Set $A=\{3,4,5\}$. By calculation, find the number of subsets in set $A$.
17. Round off the expanded number to the nearest hundreds. $9000+800+70+3$.
18. Find the product of 342 and 58.
19. Find the difference between 7685 and 348 .
20. With the help of a sharp pencil, ruler and a pair of compasses only, construct an angle of $90^{\circ}$.
21. Use the figure below to find the value of $2 n$.

22. Use the clock face below to tell the time.


## PREPARATION FOR MIDTERM 1 SET ONE

## SECTION A (20 QUESTIONS - 40 MARKS)

| 1. Subtract $40-8$ | 2. Write XLIX in Hindu Arabic numerals. |
| :--- | :--- |
| 3. Shade the union set on the venn <br> diagram. | 4. Find the LCM of 6 and 8 |



| 17. Moses ate $\frac{1}{5}$ of a sugar cane in the |  |
| :--- | :--- |
| morning, $\frac{2}{5}$ in the afternoon and the |  |
| remaining part in the evening. What <br> fraction did he eat in the evening? | 18. Find the value of 2 y in; <br> 19. Multiply : $2 \times 3$ using a number line <br> 20. Joanita bought two pens at shs. 500 each <br> and three books at shs. 3,900. How much <br> change did she get if she had a five <br> thousand shilling note? |

## SECTION B (12 QUESTIONS - 60 MARKS)

21. Use the venn diagram below and answer the questions that follow;


List all the members that are not in set B.

| Find $\mathrm{n}(\mathrm{A}$ U B ) | (2 |
| :---: | :---: |
| 22. Given the number 9836 <br> (a) Represent the number on the abacus. | $\begin{aligned} & \hline(2 \\ & \text { marks }) \end{aligned}$ |
| (b) Write the above number in words. | $\begin{aligned} & \hline(2 \\ & \text { marks }) \end{aligned}$ |
| (c) Expand the above number using place values. | $\begin{aligned} & \hline(2 \\ & \text { marks }) \end{aligned}$ |
| 23. Use >, or < or = to complete the statements below. <br> (a) $14 \times 5$ $\qquad$ $4+51$ <br> (b) $86-6$ $\qquad$ $26 \times 4$ <br> (c) $18 \div 3$ $\qquad$ $15 \times 2$ | (2marks <br> @) |


27. Use the circle below to answer the questions that follow.

| (a) Name line OC $\qquad$ | (1 mark) |
| :---: | :---: |
| (b) Find the measurement of line AB . | $\begin{aligned} & \hline(2 \\ & \text { marks }) \end{aligned}$ |
| (c) Name point marked O. | (1 mark) |
| 28. (a) Work out; Weeks $\begin{array}{rc}\text { Days } \\ 2 & 3 \\ +3 & 6\end{array}$ | (2 <br> marks) |
| (b) A swimming competition took 240 minutes. How long was the competition in hours? | (2 mark) |


30.Danze went to a supermarket and bought the following items.

1 kg of sugar at shs. 3200.
1 packet of Omo at shs. 1500.
1 kg of salt at shs. 550
A bar of soap at shs. 3500
(a)How much was the most expensive item?
(b) Find the cost of 2 kg of sugar and a bar of soap.
(b) Find the cost of 2 kg of sugar and a bar of soap.
(c) If Danze went with a ten thousand shilling note and bought all the items, how much was his change?
(2 marks)
31.Study the figure below and answer the questions that follow.

(1 mark)

| (b) Find the area of the inner rectangle. | (1 mark) |  |
| :--- | :--- | :--- |
| (c) Calculate the area of the shaded part. | (2 <br> marks) |  |
| 32. Find the missing angles. <br> a) <br> 130 | b) | marks@) |

# PREPARATION FOR MIDTERM 1 SET TWO 

## SECTION A - (40 MARKS)

| 1. Add correctly: $13+14$ | 2. Given that $P=\{0,2,4,6,8\}$ and $R=\{1,2,3,4,5\}$. Find $P \cap R$ |
| :---: | :---: |
| 3. Write 125 in words. | 4. Expand 469. |
| 5. Solve: $\mathrm{m}+4=19$ | 6. Given that represents 6 balls. How many balls are represented by (2) ? |
| 7. At Malcolm's birthday party, 96 adults and 298 children attended. How many more children than adults attended the party? | 8. Find the lowest common multiple of 6 and 4. |


| 9. Annet bought a bag at Shs. 24000 and sold it at Shs. 25000. What profit did she make? | 10.Use a pencil, ruler and a pair of compasses only to construct an angle of $90^{\circ}$. |
| :---: | :---: |
| 11.Given that $\mathrm{K}=\{7,9,14\}$. Find $\mathrm{n}(\mathrm{K})$ | 12. Find the next two numbers in the sequence. $3,4,6,9,$ $\qquad$ $\qquad$ |
| 13. Calculate the perimeter of the figure below. | 14.At the beginning of the term, Brennan was given 20 books and used $\frac{3}{5}$ of them. How many books did he use? |
| 15.Find the value of $n$ in degrees. | 16. Mathew bought 7 sweets at shs. 400 each. How much money did he pay? |
| 17.Write the place value of 8 in 28345. | 18.Show "twenty minutes past eight" on the clock face below. |

19. Think of a number, take away 7 from it and the answer is 13 . Find the number.
20.A certain man carried 2 kg of sugar and 5 kg of rice. Find the total mass the man carried in grams.

## SECTION B - (60 MARKS)



| (b) Find ; (i) $\mathrm{T}-\mathrm{S}$ | (1 mark) |
| :---: | :---: |
| (ii) $n(T \cup S)$ | (1 mark) |
| 23.a) There are 55 pupils in each class. How many pupils are there in 4 classes? | (2 marks) |
| b) If each pupil was given 2 sweets, how many sweets were they given altogether? | (2 marks) |
| 24. Use the symbols; >, < or = to complete the statements below. | (1 mark @) |
| $7 \times 1$ |  |
| $2 \times 0 \ldots 2+0$ |  |
| $2+2 \ldots 2 \times 2$ |  |
| $12 \times 2$ |  |


| 25.In a team of 48 players, $\frac{1}{4}$ of them are boys and the rest are girls. <br> (a) Find the fraction of girls. | (2 marks) |
| :---: | :---: |
| (b) How many players are; <br> (i) Boys | (2 marks) |
| (ii) Girls | (2 marks) |
| 26.With the help of a ruler, a sharp pencil and a pair of compasses only , construct a triangle KFC such that $\mathrm{KF}=\mathrm{FC}=\mathrm{KC}=6 \mathrm{~cm}$. | (5 marks) |


29. Cathy went shopping and bought the following items. 6 books at Shs. 500 each.
5 pens at Shs. 1000 each.
A geometry set at Shs. 4000.
(a) How much money did Cathy pay for all the items?
(b) If she went with Shs. 20,000, what was her change?
30.a) Find the missing numbers.
(i) $0,2,4,6$, $\qquad$
(ii) $1,3,5,7$, $\qquad$
(b) List down all the factors of 6 .


## SELF EXERCISE 19

1. Find the product of 512 and 5 .
2. Divide 378 by 3 .
3. Given that $a=48$ and $b=96$, find the value of $b+a$.
4. What number has been expanded to get; $\left(4 \times 10^{2}\right)+\left(5 \times 10^{1}\right)$
5. Round off 1965 to the nearest hundreds.
6. Given that; $A=\{d, e, f, g\}$ and $B=\{f, g, h, i, j\}$. What is $A \cap B$ ?
7. On the Venn diagram below, shade $P-Q$.

8. Write the first 10 odd numbers.
9. Given that $B=\{$ even numbers less than 15$\}$. Write the members of set $B$.
10. Change $\frac{39}{7}$ into a mixed fraction.
11. Workout the area of the shaded part in the figure below.


20 m
12. Using a ruler, a sharp pencil and a pair of compasses only, construct triangle $W A X$ such that $W A=A X=W X=7 \mathrm{~cm}$.
13. Add; $44+65$
14. Find the difference between 6758 and 499.
15. Multiply; $12 \times 3$.
16. Set $M=\{b, c, t\}$. How many subsets does Set $M$ have?
17. What number has been expanded to give $(3 \times 1000)+(9 \times 100)+(6 \times 10)+(7 \times 1)$ ?
18. Using a pair of compasses, ruler and a sharp pencil only, construct an angle of $60^{\circ}$.
19. Find the value of $x$ in degrees.

20. Convert 12 weeks to days.
21. Add; Hrs Min
358
$+242$
22. If $k=8, m=5$ and $n=2$. Find the value of; $m n+k$.

# SELF EXERCISE 20 <br> SECTION A 

1. Change 5 metres to cm .
2. Workout the perimeter of a triangular garden which measures $90 \mathrm{~m}, 65 \mathrm{~m}$ and 78m.
3. A banana plantation is 50 m long and 32 m wide. What area does the plantation cover?
4. Change $31 / 2 \mathrm{~kg}$ to grammes.
5. Divide; $3 \longdiv { 1 8 4 2 }$
6. Mugisha had 14 cows on his farm. Draw tallies to represent the number of cows Mugisha had.
7. Set $A=\{1,3,5,7,9\}$. and $B=\{1,2,3,4,5,6\}$. Find $n(A \cup B)$
8. Kamuntu bought a radio at Shs. 70,000 and later sold it at Shs. 57,000 . Calculate his loss.
9. Calculate the size of angle $y$.

10. Find the sum of the missing numbers.
$0,2,4,6,8,10$, $\qquad$ , $\qquad$ .

## SECTION B

11 (a) Convert $7 \frac{1}{3}$ to an improper fraction.
(b) Convert $\frac{19}{8}$ into a mixed number.
(c) Shade $\frac{1}{5}$ on the figure below.

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |

12(a) Solve; $\frac{\square}{\overline{6}}=10$
(b) Aine had some sweets. He was given 6 more sweets and he now had 15 sweets in total. How many sweets did he have before?
(c) Solve; $2 k-3=13$

13(a) Name the shapes below.
(i)

(i)

(b) With the help of a sharp pencil, a ruler and a pair of compasses only, construct a triangle $A R K$ such that $A R=5 \mathrm{~cm}$ and $R K=A K=6.5 \mathrm{~cm}$.

## SELF EXERCISE 21

## SECTION A

1. If represents 10 balls, how many balls are represented by the pictures below?

2. Mary scored the following marks in a series of Maths tests. $75,90,85,95,98$. Find the median mark.
3. Kenneth bought 36 bottles in the morning and 29 bottles in the afternoon. Find the range of bottles bought.
4. Find the average score of the following; 6, 7, 9, 4, 4.
5. What is the model frequency of $24,54,24,20,30,33$ ?
6. Add 22 to the next number in the sequence. 17, 19, 21, 23, $\qquad$
7. List all factors of 18 .
8. Multiply 6 the fifth odd number.
9. Find the LCM of 6 and 8 .
10. Find the next two even numbers in the sequence.

84, 86, 88, $\qquad$ ,

## SECTION B

11. Isaac went to the shop and bought the following items.

3 kg of sugar at Shs. 4,000 per kg.
5 books at Shs. 800 a book.
2 pens at Shs. 1,500 each.
(a) Calculate his total expenditure.
(b) If he was given a change of Shs. 1,000, how much money did he have at first?
12. Use the figure below to answer the questions that follow.

(b) Double the perimeter of the above figure.
13. In a group of 600 people, $\frac{2}{3}$ of them are men and the rest are women.
(a) Find the fraction of women.
(b) How many more men than women are in the group?

## SELF EXERCISE 22 SECTION A

1. Find the distance around the figure.

2. John's home is 12 km from the hospital. What is this distance in metres.
3. Find the area of a square garden whose side is 13 m each.
4. Convert $21 / 2 \mathrm{~kg}$ to grammes.
5. Find the sum of 7894 and 6438 .
6. Find the range of the following; $55 \mathrm{~kg}, 80 \mathrm{~kg}, 96 \mathrm{~kg}$ and 49 kg .
7. Use the Venn diagram below to list all the subsets of $B-A$.

8. Kirabo bought two pens at Shs. 1,500 each and three books at Shs. 3,600. How much change did she get if she had a ten thousand shilling note?
9. Calculate the value of $3 y$ using the figure below.

10. Find the sum of the next two numbers in the sequence.
$5,7,10,14$, $\qquad$ , $\qquad$ .

## SECTION B

11. In a group of 420 people, $\frac{3}{7}$ of them are males and the rest are females.
(a) Find the fraction of females.
(b) How many males are in the group?
(c) How many more females than males are in the group?
12. Solve the equations below (show the working).
(a)

(b) $5+\square=29$
(c) $\square+9=34$

13(a) With the help of a sharp pencil, a ruler and a pair of compasses only, construct a square $A B C D$ whose side is 5 cm each.
(b) Calculate the value of angle x in degrees.


SELF EXERCISE 23

## SECTION A

1. Find the missing even number in the sequence. $2,4,6,8$, $\qquad$ .
2. How many triangles are in this pattern?

3. Fill in the missing number.

1, 3, 5, 7, $\square$
4. Multiply the next number in the sequence by 5 .

4, 8, 12, $\qquad$ .
5. Find the lowest common multiple of 4 and 10 .
6. A sheep was bought at Shs. 28,500. It was sold at Shs. 26,750. Calculate the loss made.
7. Ryan bought a book at Shs. 850 . Find the cost of 2 similar books.
8. How much money is contained in 2 shilling notes of Shs. 5,000 and 4 coins of Shs. 500?
9. Solomon bought 2 bottles of soda at Shs. 1,200 each and a bag at Shs. 5,000. How much money did Solomon spend altogether?
10. Joseph had Shs. 20,000. He bought a bunch of matooke at Shs. 7,500 and mangoes at Shs. 1,500. What was his change?

## SECTION B

11. Study the figure below and answer the questions that follow.

(a) Workout the area of the outer figure.
(b) Find the area of the inner figure.
(c) Calculate the area of the shaded part.

12(a) Multiply; $\frac{2}{5} x \frac{2}{5}$
(b) Add; $\frac{2}{9}+\frac{1}{3}$
(c) Subtract; $\frac{7}{8}-\frac{1}{2}$
13. Maria scored the following marks in the mathematics tests. $90,80,95,85,80$.
(a) Find the median mark.
(b) What was the range of her marks?
(c) Calculate her mean score.

## SELF EXERCISE 24 <br> SECTION A

1. Find the sum of the value of 8 and the value of 5 in the number 78654 .
2. Find the value of $p$ in degrees.

3. Simplify; $7 m+5 h-3 m+h$
4. Add; Hrs Min

| 5 |
| ---: |
| +25 |

5. Workout the area of the shaded region in the figure.


## SECTION B

6(a) Add Shs. 27,800 to Shs. 18,400.
(b) Mark bought a bag at Shs. 58,00 and later sold it at Shs. 45,800. Calculate the loss made by Mark.
(c) Mr. Barigye bought 2 pens at Shs. 1,000 each and a book at Shs. 1,200. Find his change if he had a note of five thousand shillings at first.

7(a) Given the digits; 8, 9, 5. Form;
(i) the biggest 3 digit number. $\qquad$
(ii) the smallest 3 digit number $\qquad$
(iii) Find the sum of the biggest and smallest 3 digit number.
(b) Calculate the product of the place value of 6 and the value of 5 in the number; 5364.
8. The bar graph below shows the number of eggs collected in 5 days.

(a) On which day were the most number of eggs collected?
(b) How many more eggs were collected on Monday than Wednesday?
(c) Find the total number of eggs collected for the five days.

## SELF EXERCISE 25

1. Express 94 as Roman numerals.
2. Change CXLVIII into Hindu - Arabic numerals.
3. What number has been expanded to give $\left(4 \times 10^{2}\right)+\left(9 \times 10^{1}\right)+\left(5 \times 10^{0}\right)$.
4. What is the product of 185 and 56 ?
5. A rectangular playground measures 125 metres by 49 metres. How many square metres make up that playground?
6. Express $\frac{37}{5}$ as a mixed fraction.
7. Reduce $\frac{144}{264}$ to its simplest form.
8. Find the HCF of 40 and 45 .
9. Given that $K=\{$ Composite number less than 16\}. Find $n(K)$
10. Write empty set or not empty set. $P=\{$ Wolves that do not eat meat $\}$
11. Find the lowest common multiple of 5 and 6 .
12. There are 1248 girls and 964 boys in Greenhill Primary School. How many more girls than boys are in the school?
13. Name the geometric figure below.

14. Workout the value of angle $y$ in degrees.

15. How many sides does the triangle have?

16 Draw and shade set Q - P.
17. Find the difference of the value of 9 and 3 in 9436.
18. Convert $31 / 4$ hours to minutes.
19. How many weeks are in 42 days?
20. Given that $x=2$ and $y=5$, find the value of $3 y-4 x$.
21. Solve for the value of $n . ~ 3 n-3=15$.
22. What is the sum of 487 kg and 54 kg ?

## SELF EXERCISE 26

1. Add; 35

$$
\begin{array}{r}
12 \\
\hline
\end{array}
$$

2. Share equally 460 books between two boys.
3. Workout the difference of the value of 9 and the value of 5 in the number 9456.
4. What number has been expanded to give $(3 \times 100)+(7 \times 100)+(2 \times 10)+(5 \times 1)$ ?
5. David started digging at 6:20am and finished at 11:45am. How long did he take digging?
6. Given that Set $K=\{3,5,7,9\}$ and Set $P=\{1,2,3,4,5,6\}$
(a) Show the above sets on the Venn diagram below.

(b) Find the $\mathrm{n}(\mathrm{KnP})$
(c) List all the elements in Set $\mathrm{P}-\mathrm{K}$.

7(a) With the help of a sharp pencil, ruler and a pair of compasses only construct a triangle such that $A B=8 \mathrm{~cm}, B C=6 \mathrm{~cm}$ and $A C=4 \mathrm{~cm}$.
(b) Measure angle A .
8. Given that $a=4, b=5, c=3$, find the value of;
(i) $a b+c$
(ii) $2 b+a c$
(iii) $c \times c-a$
9. Find the area of a square garden whose perimeter is 20 mm .

## SELF EXERCISE 27 SECTION A

1. Convert $31 / 2$ metres to cm .
2. Workout the area of a triangle whose base is 10 cm and height 7 cm .
3. A flower garden is 25 m long and 8 m wide. Find its perimeter.
4. Calculate the volume of the figure below.

5. Subtract 678 from 999.
6. If represents 10 balls, draw pictures to represent 60 balls.
7. Given that set $Y$ has the first five even numbers. List all the members in set $Y$.
8. David bought a goat at Shs. 70,000. At what price must he sell the goat to get a profit of Shs. 30,000?
9. With the help of a sharp pencil, a ruler and a pair of compasses only, construct an angle of $60^{\circ}$.
10. Find the product of the next two numbers in the sequence.

9, 13, 17, 21, $\qquad$ , $\qquad$ .

## SECTION B

11 (a) Add $\frac{1}{6}$ to $\frac{3}{8}$
(b) Subtract $\frac{1}{4}$ from $\frac{5}{6}$
(c) What is $\frac{3}{4}$ of 480 cups?

12(a) Solve; $2 \mathrm{y}-4=18$
(b) Solve; $p+5=19$
(c) Find the value of $k ; \frac{k}{5}=20$
(d) Simplify; $4 \mathrm{~m}+8 \mathrm{k}-\mathrm{m}+3 \mathrm{k}$
13. Study the figures below and calculate the value of the unknowns
(a)
$670 \mathrm{P}_{\square}$
(b)

(c)


## SELF EXERCISE 28 SECTION A

1. Add; Shs. 1200

+ Shs. 1800

2. Emma bought 3 books at Shs. 900 each and a pen at Shs. 1,500. How much money did Emma spend altogether?
3. The price of a bar soap is Shs. 2,500. How much do you pay for 2 similar bars of soap?
4. Simon buys a book at Shs. 2,200 and sells it at Shs. 2,500. Calculate his profit.
5. Find the loss made on an article bought at Shs. 37,500 and sold at Shs. 33,000.
6. Convert $3,200 \mathrm{~cm}$ to metres.
7. Wiswa's rope is 15 metres long and Nakato's rope is 18 metres long. What is the total length of the two ropes in cm ?
8. Subtract; m cm

735
$\begin{array}{r}-30 \\ \hline\end{array}$
9. Double the perimeter of an equilateral triangle whose side is 12 hm each.
10. Calculate the area of the figure below.


## SECTION B

11. At Greenhill Academy Buwaate Primary School, $3 / 4$ of the pupils are girls and the rest are boys. If the school has 1600 pupils;
(a) Find the fraction of boys.
(b) How many more girls than boys are in the school?
12. The following were marks obtained by P. 5 pupils in Mathematics test. 40, 60, 50, 80, 90, 60, 40.
(a) Find the range of the marks.
(b) Find the median mark.
(c) Calculate the average mark.

13(a) Find the smallest number that is exactly divisible by 6 and 8.
(b) What is the GCF of 20 and 30 ?

# SELF EXERCISE 29 

## SECTION A

1. Convert 3 days to hours.
2. A mathematics exam began at 9:00am and ended at 11:30am. How long did it last?
3. Workout

Hrs Min

| 3 |
| ---: |
| +20 |
| +20 |

4. What morning digital time is shown on the clock face?

5. Add 30 to the next number in the sequence. 3, 4, 6, 7, 9, $\qquad$ .
6. Find the area of a rectangle whose length is 10 m and width 9 m .
7. Given the digits; 4,9,3, find the sum of the biggest number and the smallest number formed using all the above digits.
8. How many coins of 500 shillings make Shs. 2,000 ?
9. If $p=2$ and $x=9$, find the value of $2 x+4 p$.
10. Workout; $\frac{3}{4}-\frac{1}{6}$

## SECTION B

11 (a) I think of a number, add 6 to it, my answer is 24 . Find the number.
(b) Solve; $3 y-9=18$
(c) Simplify; $6 k+2 y+3 k+5 y$

12(a) Using a pair of compasses, a sharp pencil and a ruler, construct triangle MOE such that $\mathrm{MO}=\mathrm{OE}=\mathrm{ME}=4.5 \mathrm{~cm}$.
(b) How many lines of symmetry does the figure below have?

13. Use the price list below at quality supermarket to answer the questions that follow.

1 kg of sugar at Shs. 4,500
1 loaf of bread at Shs. 4,000
1 litre of milk at Shs. 1,600
(a) How much does the most expensive item cost?
(b) (i) If David bought 2 kg of sugar, 1 loaf of bread and 2 litres of milk, how much money did he spend altogether?
(ii) Find the change if David had twenty thousand shillings at first.

## SELF EXERCISE 30

## SECTION A

1. Given that $1 \mathrm{~m}=100 \mathrm{~cm}$, change 9 m to cm .
2. The perimeter of a square is 40 hm . Find its area.
3. How many mm are in a metre?
4. Find the area of a rectangle whose length is 8 cm and width 5 cm .
5. Add; m cm
$3 \quad 78$
$+242$
6. Subtract; $\frac{2}{3}-\frac{1}{2}$
7. $\frac{2}{3}$ of the seats in a bus are occupied by adults and $1 / 4$ by children. What fraction of the seats in the bus is occupied?
8. What is $3 / 4$ of 48 cups?
9. Convert $31 / 2$ to an improper fraction.
10. What fraction is unshaded in the figure below?


## SECTION B

11. The graph below shows number of petrol in litres sold in a week in the month of January 2017.

(a) How many litres of petrol were sold on Sunday?
(b) On what two days were the same number of litres sold?
(c) Find the total number of litres sold in that week.
(d) Find the range of petrol in litres sold in the week.

12(a) With the help of a sharp pencil, ruler and a pair of compasses only, construct an equilateral triangle $M T N$ such that $M T=T N=M N=5 \mathrm{~cm}$.
(b) Measure angle $M$ $\qquad$
13. A parent went to the market and bought the following items;

2 shirts at Shs. 8,000 each.
4 kg of beans at Shs. 1,200 per kg.
3 litres of milk at 1,000 each.
(a) Calculate the total expenditure.
(b) If he was given a change of Shs. 1,200, how much money did he have at first?

## SELF EXERCISE 31

## SECTION A

1. Subtract; $\frac{3}{4}-\frac{1}{6}$
2. Workout the value of $y$ in degrees using the figure.

3. Simplify; $7 x+5 m-2 x+3 m$
4. Workout; years months
39

$$
\begin{array}{r}
8 \\
+4 \\
\hline
\end{array}
$$

5. The rectangular garden is 320 metres by 40 metres. Find the total distance around the garden.

## SECTION B

6. In a group of 930 people, $\frac{2}{3}$ of them are males and the rest are females.
(a) Find the fraction of females.
(b) How many females are in the group?
(c) How many more males than females are in the group?
7. Mary went to the shop and bought the following items.

3 kg of rice at Shs. 3,000 per kg
2 bars of soap at Shs. 3,500 each bar.
4 loaves of bread at Shs. 16,000.
(a) How much did she pay for all the items?
(b) If she was given Shs. 3,000 as change, how much money did she give to the shop keeper?
8. The pictograph below shows the number of cups given to the five pupils who excelled in the Mathematics contest at Greenhill Academy. Use it to answer the questions that follows.

(a) Who got the highest number of cups?
(b) Which pupils got the same number of cups?
(c) How many less cups did Asanda get than Joshua?
(d) How many cusp did the five pupils get altogether?

1. Find the next number in the sequence; $5,10,15,20$, $\qquad$ .
2. Find the lowest common multiple of 8 and 12 .
3. Paul bought 2 shirts at Shs. 5,000 each and a book at Shs. 2,800 . How much money did Paul spend altogether?
4. Dan bought a bag at Shs. 27,000 and later sold it at Shs. 23,500. Calculate the loss made by Dan.
5. Double the perimeter of the figure below.

6. On a farm of 500 animals, $\frac{3}{5}$ of them are cattle and the rest are goats.
(a) Find the fraction of goats.
(b) How many cattle are on the farm?
(c) How many more cattle than goats are on the farm?
7. Opio scored the following marks in a series of tests; $55,60,30,45,60$.
(a) Find the range of his marks.
(b) Find the median mark.
(c) Work out the mean mark.
8. Using a pair of compasses, ruler and sharp pencil only, construct a triangle such that $A B=7 \mathrm{~cm}, B C=6 \mathrm{~cm}$ and $A C=5.5 \mathrm{~cm}$.
(b) Measure angle $B$.

## SELF EXERCISE 33

## SECTION A

1. An examination started at 9:00am and took 2 hours 30 minutes. At what time did it end?
2. Add

| weeks | days |
| :---: | :---: |
| 7 | 6 |
| +3 | 5 |

$\qquad$
3. Write the afternoon time shown on the clock face below.

4. Convert $41 / 2$ hours to minutes.
5. Find the LCM of 8 and 9 .
6. Study the figure below and workout its perimeter.

7. Expand 6437 using place values.
8. Subtract; $512_{\text {six }}$
$\qquad$
9. I think of a number $y$, add 6 to it, I get 14 as my result. What is the value of $y$ ?
10. Add; $\frac{2}{3}+\frac{1}{6}$

## SECTION B

11 (a) Solve; $2 x+5=25$
(b) Given that $x=5$ and $y=4$, find the value of;
(i) $y+x$
(ii) $3 x y$
(iii) $3 x-2 y$

12(a) Find the missing angles.

(b)

(c) With the help of a sharp pencil, a ruler and a pair of compasses only, construct a rectangle $V X Y Z$ such that $\overline{V X}=6 \mathrm{~cm}$ and $\overline{X Y}=4 \mathrm{~cm}$.
13. Lugoloobi went to a market and bought the following items.

1 kg of sugar at Shs. 5,000.
1 packet of omo at Shs. 3,500.
1 kg of salt at Shs. 1,200.
A bar of soap at Shs. 4,000.
(a) How much money was the most expensive item?
(b) Find the cost of 3 kg of sugar and a bar of soap.
(c) If Lugoloobi went with a twenty thousand shilling note and bought all the items on the list, how much money was his change?

## SELF EXERCISE 34 <br> SECTION A

1. Add; $\frac{1}{4}+\frac{2}{4}$
2. Change $2 \frac{1}{2}$ to an improper fraction.
3. What fraction is shaded in the figure below?

4. What is $\frac{5}{9}$ of 27 books?
5. In a class of 30 pupils, $\frac{2}{5}$ of them are girls and the rest are boys. How many boys are in the class?
6. Subtract; $\frac{3}{4}-\frac{1}{2}$.
7. Find the average of the following;
$10,20,40,20,30$.
8. If $\square$ represents 8 cups, draw pictures to show 48 cups.
9. Double the range of 48 and 40 .
10. Find the median of the following; 6, 9, 6, 7, 6, 5 .

## SECTION B

11. Find the values of the angles marked with letters.
(a)

(b)

(c)

12. Use the figure below to answer the questions that follow.

(a) Calculate the area of the outer figure.
(b) Find the area of the inner figure.
(c) Calculate the area of the unshaded region.
13. Kato bought the following items from the supermarket.

5 exercise books at Shs. 800 each.
2 pencils at Shs. 250 each.
3 rulers at Shs. 1,500.
(a) How much money did he spend altogether?
(b) If he had a note of ten thousand shillings only, work out his change.

# SELF EXERCISE 35 

## SECTION A

1. Naluyima bought a dress at Shs. 45,000 and sold it at Shs. 38,500. What loss did she make?
2. Kevin bought 2 books at Shs. 1,200 each and a cup at Shs. 2,000. How much money did he spend altogether?
3. How many notes of Shs. 1,000 can be got from Shs. 20,000 ?
4. Philip had 3 notes of Shs. 2,000 and 4 coins of Shs. 1,000. How much money did Philip have altogether?
5. Martha ate $\frac{1}{3}$ of the sugarcane on Thursday and $\frac{2}{9}$ on Friday. What fraction of the sugarcane did she eat?
6. Tell the time shown on the clock face.

7. Use long division to divide 187 by 11 .
8. If $\square$ represents 10 cups, how many cups are represented by the following pictures?

9. If set $B$ contains vowel letters. List all the members in set $B$.
10. If $m=5$ and $y=4$, find the value of $m y+2 m$

## SECTION B

11. Fill in the missing value.
(a)
 $-4=16$
(b) $7+\square=19$
(c) Solve; $\frac{x}{5}=9$
(d) Solve; $2 p+6=20$

12(a) Find the value of the unknown angles.
(i)

(i)

(b) With the help of a sharp pencil, a ruler and a pair of compasses only, construct an equilateral triangle MTN such that $M T=T N=N M=5 c m$.
13. Richard covered the floor using a carpet as shown below.

(a) Find the area of the carpet.
(b) Find the area of the room.
(c) Calculate the area of the uncovered part of the room.

## SELF EXERCISE 36 SECTION A

1. Subtract; 248
$\qquad$
2. Round off 736 to the nearest tens.
3. Solve; $y-4=16$
4. Add; $\frac{1}{4}+\frac{1}{2}$
5. Musa bought a book at Shs. 800. What is the cost of 4 similar books?
6. Find the value of 3 m from the figure below.

7. Draw a Venn diagram to represent that all girls (G) are females (F).
8. Express 48 in Roman numerals.
9. Calculate the average mark of $2,8,4$ and 10 .
10. Find the smallest three digit number that you can obtain from the following digits $9,0,5$.

## SECITON B

11. In a class of 35 pupils, 18 pupils like Music (M), 21 pupils like History (H), 7 pupils like both subjects and 3 pupils do not like any of the two subjects.

(a) Complete the above Venn diagram.
(b) How many pupils like only one subject?
(c) How many pupils do not like Music?
12. Use the figure below to answer the questions that follow.

(a) Calculate the area of the outer figure.
(b) Find the area of the shaded part.

13(a) With the help of a sharp pencil, ruler and pair if compasses only, construct an equilateral triangle $X Y Z$ such that $\overline{X Y}=\overline{Y Z}=\overline{X Z}=6 \mathrm{~cm}$.
(b) Measure angle $Y$ $\qquad$
(c) Construct a circle of radius 3.5 cm .
14. In a school of 280 pupils, $\frac{3}{7}$ of the pupils are boys and the rest are girls.
(a) Find the fraction of girls.
(b) How many boys are in the school?
(c) How many more girls than boys are in the school?
15. Given that $m=4, b=6$ and $y=5$, find the value of;
(a) $m+b+y$
(b) $m y+b$
(c) $\frac{b y}{10}$
16. Below is the price list of our shop.

A pen at Shs. 3,000
A ruler at Shs. 1,500
A book at Shs. 12,500
(a) What is the most expensive item on the list?
(b) Find the cost of 2 pens and 3 books.
(c) If Barigye bought a book and 2 rulers. What was his financial stand if he had a note of ten thousand shillings at first?

## SELF EXERCISE 37 SECTION A

1. Set $P=\{a, b, c, d, e, f, g, h, i\}$. Set $K=\{a, e, i, o, u\}$. Find $P-K$.
2. Solve for $x \cdot x+9=15$
3. Collect the like terms and simplify; $4 k+2 p+8 k+5 p$
4. What is the additive inverse of +8 ?
5. What number has been expanded to get $4000+800+2$ ?
6. Add; $\frac{1}{3}+\frac{1}{2}$
7. Arrange $\frac{3}{5}, \frac{1}{5}, \frac{4}{5}$ and $\frac{2}{5}$ starting with the smallest.
8. How many halves are in 3 wholes?
9. My mother used $\frac{4}{10}$ of the water in the jerry can to cook food. What fraction of the water remained in the jerry can?
10. In a library, there are 2485 mathematics text books and 3127 story books. How many books are in the library altogether?

## SECTION B

10(a) Find the size of angle $k$.

(b) What is the size of angle p in degrees?

(c) Find the value of $y$.

(d) How many lines of folding symmetry has the figure below?

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

(a) Find the value of;
(i) $\mathrm{k}=$
(ii) $\mathrm{p}=$
(iii) $y=$
(b) Write the mathematical statement of the above number line.
(c) Which integer is represented by the arrow below?

13. Given that $K=\{0,2,4,6,8,10\} B=\{1,2,3,4,5,6,7,8\}$.
(a) Represent the above information on the Venn diagram below.

(b) From the above Venn diagram;
(i) Find $\mathrm{K} \cap \mathrm{B}$
(ii) Find $\mathrm{K}-\mathrm{B}$

## SELF EXERCISE 38

In a village of 72 farmers, $\frac{2}{3}$ of them grow rice and the rest grow maize.

1. Find the fraction of the farmers who grow maize.
2. How many farmers grow rice?
3. How many farmers grow maize?
4. On the Venn diagram below, shade $A \cap B$.

5. $\operatorname{Set} A=\{2,4,6\}$ and $\operatorname{Set} B=\{8,10,12,14\}$. Set $A$ and $B$ are $\qquad$ sets.
6. Find the average of $20,15,35,30$.
7. Workout; $32-41+18$
8. Write in figures; six hundred forty three thousand eighty nine.
9. What number has been expanded to give $80+5+0.2+0.07$ ?
10. Find the multiples of 3 between 40 and 60 .
11. Find the area of the shaded part.


15 m
12. Think of a number, take away 8 from it and the answer is 22 . Find the number.
13. How many minutes are in an hour?
14. Subtract;

| Hrs | Min |
| :---: | :---: |
| 4 | 25 |
| -1 | 50 |

15. How many days make a week?
16. Given that Set $A=\{1,2,3,4,5\}$ and $\operatorname{Set} B=\{2,4,6,8\}$ Show the above information on the Venn diagram below.

17. Find the sum of the biggest number and the smallest number formed using the following digits; 4, 0, 3 .
18. Solve for the value of $P$ in $2 P-6=10$.
19. If $a=3$ and $b=5$, find the value of $a b+2 a$.
20. Convert $142_{\text {five }}$ to base ten.
21. Workout; $27+10 \times 5$.
22. Calculate the value of n in degrees.


## PREPARATION FOR END OF TERM 1 SET ONE

SECTION A - (40 MARKS)

| 1. Add: $14+3$ | 2. In the venn diagram below, shade the union set <br> Q |
| :---: | :---: |
| 3. Double the perimeter of the shape below. | 4. Find the next number in the sequence below. $20,16,12,8$ $\qquad$ |
| 5. Bianca gave $\frac{3}{7}$ of an apple to Benita, $\frac{1}{7}$ to Mellisa and the rest to Davita. What fraction of the apple did Davita get? | 6. Solve for y ; $y-3=13$ |


| 7. Share 903 sweets equally amongst Akrah, Joel and Olive. How many sweets did Akrah and Olive get altogether? | 8. Write "six hundred twenty nine" in figures. |
| :---: | :---: |
| 9. If $\square$ represents 6 chairs, draw pictures to represent 24 chairs? | 10.Using a venn diagram below, find all the subsets in set $B$ only. |
| 11.With the help of a sharp pencil, ruler, and pair of compasses, construct an angle of $90^{\circ}$. | 12.Show 8:00 O' clock on the clock face below. |
| 13. Identify the place value of 6 in the number 1620 | 14.Privah had a five thousand shilling note. She bought 2 kgs of sugar at shs. 2400 per kg. What was her change? |


| 15.Arrange ; $-4,+4,0,+9$ in descending order. | 16.An Omni bus had fifteen seats. If $\frac{3}{5}$ of the seats were occupied by passengers, how many free seats were in the bus? |
| :---: | :---: |
| 17.What number has been expanded to give; $3000+90+500+7 ?$ | 18.Simplify; $5 \mathrm{~d}+3 \mathrm{~d}+\mathrm{d}$ |
| 19.Find the value of 2 m from the diagram below. | 20.Work out the lowest common multiple of 8 and 6 |

21. In a class of 70 pupils, $\frac{3}{5}$ of them are girls and the rest are boys.
(a) Find the fractions of boys.
(b)Find the actual number of;
(i) boys
(ii) girls
22.Study the venn diagram below and answer the questions that follow.

(a) List all the elements in set;
(i)
P-Q
$(P \cap Q)$
(b)Find $n(P \cup Q)$

| (i) $\mathrm{P}-\mathrm{Q}$ | $(\mathrm{P} \cap \mathrm{Q})$ |  |
| :--- | :--- | :--- |
| (b)Find $\mathrm{n}(\mathrm{P} \cup \mathrm{Q})$ | (2 marks) |  |
|  |  |  |


(1 mark)
(a) Which two days of the week had the same number of litres sold?
(b)How many litres of milk were sold on Thursday?
(1 mark)
(c) How many litres of milk were sold on Tuesday and Friday?
(2 marks)
24.(a) Round off 246 to the nearest tens.
25.(a) With the help of a sharp pencil, ruler and pair of compasses,
(b) Measure angle B
26.The table below shows the money that two girls collected on a concert day.

| Denomination | Tinah | Liz |
| :--- | :--- | :--- |
| One thousand shillings | 20 notes | 10 notes |
| Five hundred shillings | 10 coins | 30 coins |
| Two hundred shillings | 30 coins | 15 coins |

Find the total collection of each girl.
27.At a party organised by primary five pupils of Greenhill Academy, there were 470 adults and 520 children.
(a)Find the total number of guests who attended the party?
(b)How many more children than adults attended the party?
(2 marks)
(c) If there were enough sodas for only 900 guests, how many guests missed sodas?
28.(a) Collect like terms and simplify; $2 y+p+3 y$
(b) Given that $\mathrm{e}=6$, find the value of $(2 e)+(\mathrm{e} \times e)$
(c) Think of a number, add 4 to it, the result becomes 11. Find the number.


| 31.(a) Express $\frac{1}{2}$ as a decimal fraction. |  |  |  |  | (1 mark) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (b)Work out: $\frac{2}{7} \times \frac{1}{4}$ |  |  |  |  | (1 mark) |
| (c) Arrange $\frac{1}{3}, \frac{1}{2}, \frac{1}{4}$ in descending order. |  |  |  |  | (3 marks) |
| 32.The table below shows Wangwe's performance in Mid term one 2016. |  |  |  |  |  |
| Subject | Mathematics | English | Science | Social studies |  |
| Score | 95 | 70 | 90 | 85 |  |
| (a)How many subjects did Wangwe write? |  |  |  |  | (1 mark) |
| (b)In which subjects did Wangwe score the highest and the lowest scores? |  |  |  |  | (2 marks) |


| (c) Find the difference between the highest and the lowest scores. | (2 marks) |
| :--- | :--- |
| (d)Find the total mark of Wangwe in all subjects. | (2 marks) |

## SET TWO

## SECTION A (20 QUESTIONS - 40 MARKS)

1. Subtract;
38
$\qquad$
2. $K=\{a, b, c, d\}$ $M=\{a, e, i, o, u\}$

Write the common members of set $K$ and $M$
2. Write the place value of 6 in the number 6782.
4. Jamil fetched a jerrycan of water. He used $\frac{3}{5}$ of the water. Write the fraction of water left in words.


|  |  |
| :---: | :---: |
| 11. A stool has 3 legs. <br> How many stools will you have if there are 141 legs? | 12. Using a ruler, pair of compasses and a sharp pencil only, construct an angle of $60^{\circ}$. |
| 13. Round off the number shown on the abacus to the nearest hundreds. | 14. Mary went to the Bank and withdrew the following notes and coins. <br> Notes: <br> Shs.50,000 <br> Shs. 2000 <br> Coins: <br> How much money did she get from the bank altogether? |
| 15. $K=\{$ bag , hen , pencil, book $\}$ $G=\{$ hen , duck , pigeon $\}$ Find $n(K \cap G)$ | 16. Expand; 6304 |


|  |  |
| :--- | :--- |
| 17. Baganizi bought 125 bunches of <br> matooke. He returned eighteen <br> bunches to the market. How many <br> bunches did he remain with? | 18. Calculate the area of a square <br> whose perimeter is 36 cm. |
| 19. Divide: 8407 by 3. | 20. Subtract; $\frac{1}{3}-\frac{1}{4}$ |

## SECTION B (12 QUESTIONS - 60 MARKS)

21. (a) Write 8709 in words.
(b) Given digits $3,6,5,8$.
(i) Form the biggest and smallest 3 digit numbers.

(b) If he had sold it Sh.63,500, what would have been his loss?
(2 marks)
22. The diagram below shows a calendar month of 2016.

| SUN | MON | TUE | WED | THU | FRI | SAT |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 |  |  |  |  |  |

a) On which day of the week did the next month start?
b) Which month of year is shown above?
c) Which day of the week was more frequent in the month above?
d) On which date did John first go to church for prayers in the above month?
25. (a) Convert $\frac{19}{6}$ into a mixed number.
(b) Shade $\frac{1}{3}$ of the figure below.

(c) Add the unshaded fraction in (b) above to $\frac{1}{6}$
26. Use the shape below to answer the questions that follow.

The side of each small square is 1 dm .

(a) Fill in;
(i) Length $=$ $\qquad$ dm
(ii) Width = $\qquad$ dm


| 28. (a) Convert $2 \frac{1}{3}$ to an improper fraction. | (2 mark) |
| :---: | :---: |
| (b) Match the following. <br> $\frac{1}{2}$ improper fraction <br> $\frac{8}{5}$ <br> proper fraction $8 \frac{2}{7}$ | (1mark@) |
| 29. Babirgye had 198 cows. Last week, the outbreak of Eastcos $\dagger$ fever killed 76 cows. How many cows did he remain with? | (2 marks) |
| (b) Find the missing number. $18-\square=7$ | (2 marks) |
| (c) If $m=6, g=9000$. Find the sum of $g$ and $m$. | (2 marks) |


32. Study the graph and answer the questions that follow. Rainfall received in the first months of the year were recorded at Greenhill Academy Primary School in 2016.

(a) How much rain was received in January?
(b) Find the difference between the rain received in the months of April and February?
(c) What was the average amount of rainfall received?

# SET THREE 

## SECTION A - (40 MARKS)

| 1. Add: $88+11$ | 2. Write XXII in Hindu - Arabic numerals. |
| :---: | :---: |
| 3. Given that set $P=\{$ apples, mangoes, oranges, pawpaws\}. <br> Find $\mathrm{n}(\mathrm{P})$ | 4. Find the next number in the sequence below. $120,130,140,150,$ $\qquad$ |
| 5. What is the additive inverse of +7 ? | 6. Solve: $\mathrm{K}+8=49$ |
| 7. Draw a line segment $\overline{x y}=6 \mathrm{~cm}$ | 8. Daniel bought 3 books at shs. 1000 each and a pen at shs. 800. How much money did Daniel spend altogether? |
| 9. Mr. Mulimi planted maize and harvested 87 kgs . Express the quantity harvested in grammes. | 10.Express $2 \frac{3}{4}$ as an improper fraction. |


| 11.A box holds 84 plates. How many |
| :--- | :--- |
| plates will 6 similar boxes hold? |

19.Given that set $\mathrm{G}=\{\mathrm{P}, \mathrm{K}\}$. List all the subsets of set G .

## SECTION B - (60 MARKS)

21. Given that $A=\{p, a, l, m\}$ and $B=\{c, a, m, e, l\}$
a) Represent the two sets on the venn diagram below.

b) List the elements of $A \cap B$.
c) How many members are in $A \cup B$ ?
22.During the interview, three cards displayed.
(a) Write down the three digit number formed when digits are arranged from;
(i) Smallest to biggest
(ii) Biggest to smallest.

| (b) Find the sum of the two numbers that were formed in (a). | (2 marks) |
| :---: | :---: |
| (c) Write the sum got in (b) above in words. | (1 mark) |
| 23.Use the price list below to answer the questions that follow. <br> A book costs shs. 1200 <br> A cup costs shs. 2000 <br> A loaf of bread costs shs. 4000 <br> (a) How much money is the cheapest item? | (1 mark) |
| (b) Find the total cost of 2 loaves of bread. | (2 marks) |
| (c) If Norah had a five thousand shilling note and bought a book and a cup, how much money did she remain with? | (2 marks) |
| 24. Given that $\mathrm{p}=5, \mathrm{r}=2$ and $\mathrm{m}=8$. Work out the value of; <br> (i) $\mathrm{p}+\mathrm{r}+\mathrm{m}$ <br> (ii) pm <br> (iii) $4 \mathrm{p}-2 \mathrm{~m}$ | (2 marks@ |

25.Out of 40 pupils who stood for elections, $\frac{3}{8}$ were in upper primary and the rest were in lower primary.
(a) What is the fraction of pupils in lower primary?
(b)Find the number of pupils that were from;
(2 marks)
(i) Lower primary
(ii) Upper primary
26.Work out correctly:
(2 marks)
(a) 4827
$\begin{array}{r}+3069 \\ \hline\end{array}$
(b) 4965
$\begin{array}{r}-1234 \\ \hline\end{array}$
(c) 234

(6 marks)
27.Using a pair of compasses, a sharp pencil and a ruler only, construct a square DEAF of sides 6 cm .

| 28.(a) Express 4 hours in minutes. | (2 marks) |
| :---: | :---: |
| (b) How many days are in 5 weeks? | (2 marks) |
| (c) Tell the morning time shown on the clock face. | (1 mark) |
| 29.The diagram below shows Mr. Mugerwa's plot of land with a house in it. Use it to answer the questions that follow. <br> (a) Find the area of the land occupied by the house. | (2 marks) |
| (b) Work out the area of Mr. Mugerwa's land. | (2 marks) |


| (c) Find the area of the plot that surrounds the house. | (1mark) |
| :---: | :---: |
| 30.Given that the magic number of the magic square below is 18 . Find the missing numbers. | (1mark@) |
| 31. The bar graph below shows the number of eggs collected by five children. |  |


| (c) Who collected the highest number of eggs? | (2 marks) |
| :---: | :---: |
| (d)Which two children collected the same number of eggs? | (1mark) |
| (e) Find the total number of eggs collected by John and Jimmy. | (2 marks) |
| 32.(a) Shade $\frac{3}{4}$ of; | (1 mark) |
| (b) Work out; <br> (i) $\frac{4}{5} \times 20$ | (2 marks) |
| (ii) $\frac{3}{10} \times \frac{5}{6}$ | (2 marks) |

