PRIMARY FOUR

MATHEMATICS

WORKBOOK

TERM III

TOPICALBREAKDOWN

THEME FIVE: MEASUREMENT

TOPIC 1 : MONEY

- ♣ Identifying denominations of Uganda currency
- ♣ Adding of money
- ♣ Subtraction of money
- ♣ Dividing of money
- ♣ Solving word problems in multiplication of money
- ♣ Finding bills and change
- ♣ Finding profits
- ♣ Finding loss
- ♣ Finding sum of days in given month
- ♣ Telling time using digital clock
- ♣ Telling time using analogue clocks
- ♣ Showing time on analogue clocks
- ♣ Changing hours to minutes
- ♣ Converting minutes into hours
- ♣ Addition of time
- ♣ Subtraction of time
- ♣ Changing weeks to days
- ♣ Changing days into weeks
- ♣ Changing years to months
- ♣ Changing months to years.
- ♣ Reading a ruler in standard units metres, centimeters, and millimetres)
- ♣ Measuring perimeter of shapes using a ruler.
- ♣ Finding perimeter of a rectangle
- ♣ Perimeter of a square
- ♣ Perimeter of a triangle
- ♣ Finding area of a rectangle
- ♣ Perimeter of a square

- ♣ Perimeter of a triangle
- ♣ Finding area of a rectangle
- ♣ Finding area of a square
- ♣ Measuring mass using kilograms and grams
- ♣ solving word problems involving mass in kgs and gms
- ♣ Measuring capacity using litres and millilitres
- ♣ Solving equations without letters in addition
- ♣ Solving equations without letters in subtraction
- ♣ Simple equations without letters in multiplication
- ♣ Simple equations involving division without letters
- ♣ Forming and solving equations in addition without letters using word problems.
- ♣ forming and solving equations in subtraction without letters using word problems
- ♣ Forming and solving equations in multiplication without letters using word problems.
- ♣ forming and solving equations in division without letters using word problems

Date : _____

LESSON 1: Identifying denominations of Uganda currency

Steps taken

- Definition of money
- Identifying coins and paper money.
- identifying the features n Uganda currency

Note: money is the medium of exchange.

Examples of coins	**Examples of paper notes**
Sh. 50sh. 1000	
Sh. 100	sh. 2000
Sh. 200sh. 5000	
Sh. 500 sh. 10000	
Sh. 1000 sh. 20000	
sh. 50,000	

LEARNER'S ACTIVITY

1. Identify the special features of the following

(a) sh. 50	(b) 100
(c) sh. 200	(d) sh. 500

2.	***Identify the special features of the following paper notes***	
	(a) sh. 2000	(b) sh. 5,000
	(c) sh. 20,000	(d) sh. 50,000

CORRECTIONS

Date : _____

MONEY

Definition of money**:** ***Money is a medium of exchange.***

LESSON 2: Addition of money

Steps taken

- Arrange the given money according to the place values.
- Add accurately and regroup where applicable.

Example 1:

Add sh. 450 + sh. 1,500

sh 1 5 0 0
+ sh. 450
sh. 1,9 5 0

Example II:

Annet had sh. 24,000. Her parent gave her more sh. 1,600. Find the amount she has.

Solution

Sh. 2 4 0 0 0
+ sh. 1,6 0 0
sh. 2 5 6 0 0

Example III:

Add: sh. 23,000 + sh. 12,500

sh. 2 3,0 0 0
+ sh. 1 2,5 0 0
sh. 4 8,0 0 0

	Example IV: Okello got sh. 30,000 from his father and later got sh. 18,000 from his mother. How much money did he have altogether? sh. 3 0,0 0 0 + sh. 1 8,0 0 0 **Sh, 4 8,0 0 0**	
	LEARNER'S ACTIVITY	
	Add the following money correctly	
(a)	Sh. 650 + sh. 250	(b) sh. 1350 + sh. 750
(c)	Sh. 5,700 + sh. 4,500	(d) sh. 1,200 + sh. 800
(e)	Sh. 9,500 + sh. 6,800	(f) sh. 7,500 + sh. 3,400
(g)	Sh. 24,000 to sh. 1,600	(h) sh. 18,300 + sh. 12,500

2.	Ruth has sh. 550 and Sarah has sh. 850. how much do both of them have?
3.	A father had sh. 22,500 her daughter gave him sh. 5,500. Work out the total amount the father has.
4.	My father has sh. 12,000 and any mother has sh. 25,000. How much money do they have altogether?
5.	A book costs sh. 1,200 and a pen costs sh. 500. Find the total cost of the two items.
6.	A ruler costs sh. 500 and a book costs sh. 3,000. What is the total cost of the two items?

CORRECTIONS

	Date : _____ **LESSON 3: Subtraction of money** Note: *The outcome of subtraction is a difference.* ***Steps taken*** ❖ Arrange the vertical form according to place values. ❖ Subtract correctly and borrow where necessary. **Example 1:** Subtract sh. 14,000from sh. 25,000 Sh.2 5, 0 0 0 + sh.1 4, 0 0 0 **Sh.1 1,00 0**
	Example II: Subtract: sh. 5,000 – sh. 3,750 Sh. 5,0 0 0 -sh. 3,7 5 0 **sh. 1,2 5 0**
	Example III: Subtract: sh.6,500- sh.19,500 sh. 1 9,5 0 0 -sh. 6,5 0 0 **sh.1 3,0 0 0**
	LEARNER'S ACTIVITY
1.	Subtract sh. 4,000 – sh.1,750

2.	Subtract sh.2,800 from sh.30,000
3.	Juma bought a cake at shs.600. Find his change if he had shs.1,000.
4.	A boy had shs.25,000 in his pocket. He later gave out sh. 5,000 to his friend. Find his change.
5.	Mary had sh.12,000 and gave sh.8,000 to her mother. Find her change.
6.	**Subtract the following:** (a) sh.9600 - sh.7750 (b) sh.2000 - sh.1550

7.	Find the differenceof sh. 950 and sh. 200.

CORRECTIONS

Date : _____

LESSON 4: Division of money

Example 1: How many sh. 500 coins make up sh. 2,000?

Solution 1:

$\frac{2,000}{500}$ = 4 five hundred coins make up sh. 2000.

OR

4 five hundred coins balance with sh. 2000.

Example 2:

How many sh. 1000 coins make up sh.5,000?

Solution 1:

$\frac{5,000}{1000}$ =5 five hundred coins make up sh. 5000.

OR

5 one thousand notes are in sh. 5,000

Example 3:

Divide sh. 10,000 by sh. 500 coins

= $\frac{10,000}{500}$

= **20 coins.**

LEARNER'S ACTIVITY

1.	Divide sh. 2,000 by sh. 200.	2. How many sh. 200 coins are in a note of sh. 2,000?
3.	Divide sh. 4000 by sh. 1,000	4. How many coins of shs 200 are in sh. 5000?

5.	How many one thousand notes are in shs. 10,000?	6. How many coins of one hundred shillings are in sh. 1000?
7.	Work out sh. 5,000 ÷ sh. 1000	8. Divide sh. 20,000 by sh. 1,000.
9.	How many sh. 2,000 notes are in sh. 10,000?	

CORRECTIONS

Date : _____

LESSON 5: Solving word problems in multiplication of money.

There are two prices in buying and selling items

(i) Total price is the price that buys for more than one item.

(ii) Unit price is the price that buys one item.

TOTAL PRICE

Steps taken

- Multiply the quantity by the unit price.
- The product obtained is the total price

Note:

Unit price is worded with

- per
- each
- every

Example 1:

A book costs sh. 600. Find the cost of 4 similar books.

1 book costs sh. 600

4 books cost sh. 600 x 4

sh. 600

x 4

sh.2,4 0 0

Example II:

A dress cost sh. 12,000. Work out the cost of 6 dresses at the same rate.

1 dress costs shs. 12000

6 dresses cost sh. 12000 x 6

sh. 12000

x 6

sh. 72,000

Example III:

Find the cost of 3kg of sugar at the rate of 3,400 each kg.

1kg costs sh. 3,400

3kg cost sh. 3,400 x 3

sh. 3,400

x 3

sh.10,200

Example IV

A kg of maize flour is sh. 2,400. What is the cost of 5kg of maize flour?

A kg of maize flour costs sh. 2,400

5 kg of maize flour cost sh. 2,400 x 5

sh. 2,400

x 5

sh. 12,000

Example V:

What is the cost of 3 rulers if one ruler is sold at sh. 500.

1 ruler costs sh. 500

3 rulers cost sh. 500 x 3

sh. 5 0 0

x 3

sh. 1,500

LEARNER'S ACTIVITY

1. ***A pen costs sh. 400, find the cost of:***

(a) 5 pens at the same rate

(b) 7 pens at the same rate.

(b)	11 pens at the same rate	(d) 1 dozen of pens at the same rate.
2.	***The cost of a ruler is sh. 500, work out the cost:***	
(a)	7 rulers at the same rate.	(b) 13 rulers at the same rate
(c)	9 rulers sold at the same rate.	(d) 6 rulers sold at the same price.
3.	Find the cost of 4kg of meat at sh. 10,000 per kg.	
4.	How much will Annet pay for 6 dresses at sh. 15,000 per dress?	

5.	What will John pay for 5 bed sheets sold at sh. 6000 per bed sheet?
6.	Find the cost of 3 apples at sh. 600 each apple.
7.	How much money will Kato pay for 8 chairs if each is sold at sh.20,000

CORRECTIONS

Date : _____

LESSON 6: Finding bills and change

Steps taken

- Find the total price for each item
- Find the sum of all items

Example 1:

Below are items Mary bought

2kg of sugar for sh. 5,000 each kg.

3kg of rice for sh. 3,000 per kg.

How much did she pay?

Sugar	**Rice**	**Bill / Expenditure**
Sh. 5,0 0 0	Sh. 3,0 0 0	Sh. 10,0 0 0
x 2	x 3	+ 9 0 0 0
sh, 10,000	**sh, 9,000**	**sh,1 9,000**

Example 2:

James bought the following items

2 litres of milk for sh. 1,600 each litre.

3 Loaves of bread for sh. 2,500 per loaf.

4 Tins of blue band for sh. 1,300 each tin.

What was his bill?

Milk	**Bread**	**Blue band**
Sh. 1,6 0 0	Sh. 2,5 0 0	Sh. 1 3,0 0
x 2	x 3	x 4
sh, 3,2 00	**sh, 7,5 00**	**sh, 5,2 00**

Total bill

s h. 3,200

sh 7,500

+ sh 5,200

Sh 15,900

	LEARNER'S ACTIVITY
1.	**Betty bought the following items** 2 pens for sh. 500 each pen. 5 books for sh. 500 per book. 2 rulers for sh. 500 a ruler. How much did she pay?
2.	**Noah bought the following items** 3kg of meat for sh. 10,00 per kg. 2kg of sugar for sh. 3,400 each kg. 4kg of beans for sh. 2,400 each kg. How much was his bill?
3.	Robert bought 2 pairs of shoes for sh. 30,000 each pair and 3 shirts for sh. 15,000, how much did he pay altogether?

4.	Juma bought 2kg of rice for sh, 3,000 per kg. 3 loaves of bread for sh. 4,500 each loaf and 2 tins of blue band at sh. 2,500 each tin. What amount did he pay altogether?
5.	**Ruth bought the following items:** 4 cakes of sh. 500 each cake. 3 bottles of soda for sh. 1000 each bottle. 5 bottles of mineral water for sh. 1000 per bottle. How much money did she pay altogether?

CORRECTIONS

Date : _____

LESSON 7: Finding profits

Profit is the difference in price or selling and buying of items.

Steps taken

- ❖ Subtract the price of selling minus the prices of buying.
- ❖ The difference of the prices is the profits

Example 1:

Akullo sold a book for sh. 700 which she bought at sh. 500.

Calculate profit she got.

The formula for profit

Profit = selling price - buying price

= sh. 700

\- sh 500

sh. 200.

Example 2

Robert bought a dress for sh. 8,000 and sold it for sh. 12,000.

Workout the profit Robert got.

Profit = selling price - buying price

= sh. 12,000

= sh. 8,000

= **sh. 4,000**

Example 3

Okello bought a phone for sh. 45,000 and later sold it at sh. 55,000. Calculate his profit.

Profit = selling price - buying price.

= sh. 55,000

\- sh. 45,000

= **sh. 10,000**

	LEARNER'S ACTIVITY
1.	Calculate the profit of an article which was bought at sh. 70,000 and sold it at sh. 80,000.
2.	Workout the profit on an article which was bought for sh. 24,000 and sold for sh. 30,000.
3.	An article was bought for sh. 14,000 and later sold for sh. 16,000. Find the profit made.
4.	Mary bought a text book for sh. 18,000 and sold it to Sarah for sh. 23,500. How much was the profit she made?

5.	Joseph bought a pair of shoes for sh. 45,000 and later sold it for sh. 55,000. How much profit did he make?
6.	Mugabo bought a radio for sh. 60,000 but later sold it for sh. 75,000. Calculate his profit after selling the item.

CORRECTIONS

Date : _____

LESSON 8: Finding loss

Loss is the difference of the buying price and selling price.

Steps taken

- Subtract the price of buying minus the price of selling.
- The difference obtained is the loss.

Example 1:

Andrew bought an article for sh. 1,200 and sold it for sh. 900. Find the loss he made.

Loss = Buying price - Selling price

= sh. 1,200

- sh 900

sh. 300

Example 2:

Musa bought a shirt for sh. 10,000 and later sold it for a price of sh. 8,500. Find the loss he made.

Loss = Buying price - Selling price

= sh. 10,000

= sh. 8,500

= **sh. 1,500**

Example 3:

Kato bought a cow for sh. 200,000 and later sold it at sh. 180,000. Calculate the loss he made.

Loss = Buying price - Selling price

= sh. 200,000

- sh. 180,000

= **sh. 20,000**

	Example 4: Mary bout a dress for sh. 25,000 and later sold it for sh. 15,000. What loss did she make? Loss = Buying price - Selling price = sh. 25,000 <u>- sh. 15,000</u> <u>= **sh. 10,000**</u>
	LEARNER'S ACTIVITY
1.	An article was bought at sh. 5,000 and later sold at sh. 3,800. Find the loss made.
2.	A table was bought for sh. 75,000 and later sold for sh. 64,000. Find the loss made.
3.	A chair was bought for sh. 25,000 and later sold for sh. 21,500. Find the loss made.

4.	A belt was sold for sh. 4,300 which was bought for sh. 5,000. Find the loss made.
5.	A bag was bought at sh. 35,000 and was sold for sh. 30,000. What was the loss?
6.	A bird was bought for sh. 18,000 and later said for sh. 16,400. Calculate the loss that was made.
7.	A table was bought for sh. 50,000 and later sold for sh. 44,000. What loss was made after selling the table?

CORRECTIONS

Date : _____

LESSON 9: Finding the sum of days in given months

- ♣ A year has 12 month.
- ♣ A month has 4 weeks on average.
- ♣ A month has 30 days on average.

Month of year	**No. of days**
January	31 days
February	29/28 days
March	31 days
April	30 days
May	31 days
June	30 days
July	31 days
August	31 days
September	30 days
October	31 days
November	30 days
December	31 days

Example 1: Find the sum of days in January and April.

January 31

April + 30

61 days

Example 2: Calculate the total days in October, November and December

October 31

November + 30

December 31

92 days

	LEARNER'S ACTIVITY	
1.	**Find the total number of days in the months of:**	
(a)	January and December	(b) October and June
(c)	May and August	(d) January, March and September
(e)	April, July and November	

CORRECTIONS

Date : _____

TOPIC: 2: Time

LESSON 10: Telling time using digital clocks

- We tell time either using
  - ✓ Digital clock
  - ✓ Analogue clock
- Definition of digital clock. Are clocks which display the time in a series of the numbers on their screens.
- Digital clocks display both the hour and minutes on the screen.
- Hours and minutes are separated by semi colon,

Steps taken

- ✓ Study the displayed time on the clock.
- ✓ Read the first digit or two digits as hours.
- ✓ Read the last two digits as minutes.

Example 1: Tell the time displayed on the digital clock below.

8

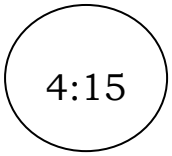
It is 8 O'clock

Example II: Tell the time displayed on the digital clock.

10:30

It is a half past 10 O'clock.

Example III: Tell the time displayed on the digital clock.



It is a quarter past 4 O'clock.

	LEARNER'S ACTIVITY
	Tell the time displayed on the digital clock (a) 2:30 _____ (b) 6:15 _____ (c) 3:00 _____ (d) 2:45 _____ (e) 12:00 _____

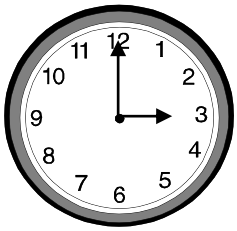
CORRECTIONS

LESSON 11: Telling time using analogue clock

Point of time is telling the exact time by the clock.

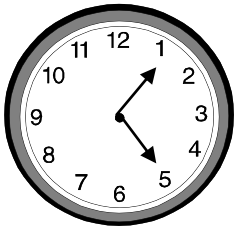
A clock has 12 numerals only

Example 1:



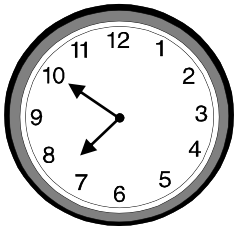
It's 3 o'clock

Example II: *tell the time shown on the clock.*



It is 25 minutes past 1 o'clock.

Example III: *What time is shown on the clock?*

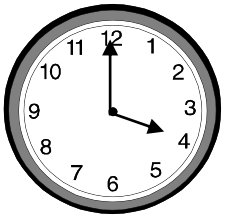


It's 10 minutes to 8 o'clock

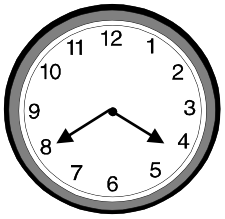
LEARNER'S ACTIVITY

1. ***Tell the time shown on the clock using the analogue clock.***

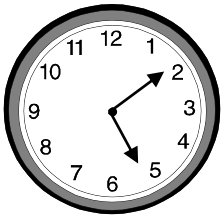
(a)



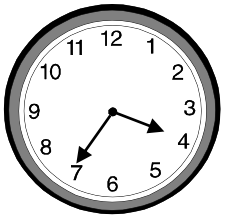
(b)

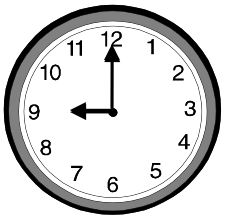
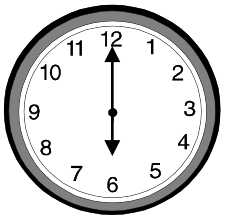
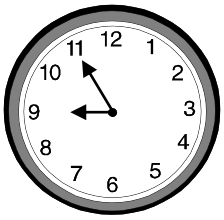
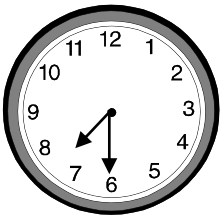


(c)



(d)



(e)		(f) 
(g)		(h) 

CORRECTIONS

LESSON 12: Showing time on an analogue clock

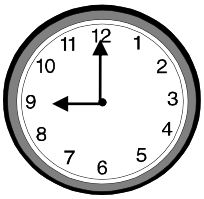
Identify the hours and minutes.

Draw a shorter hand for the given hour.

Draw a longer hand for the given minutes

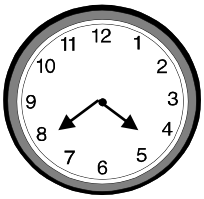
Example 1:

Show9 O'clock on the clock.



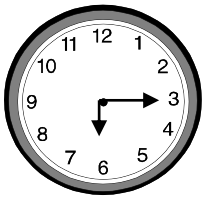
Example II

Show 20 minutes to 5 o'clock



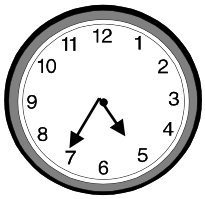
Example III:

Show 15 minutes past 6 o'clock



Example IV

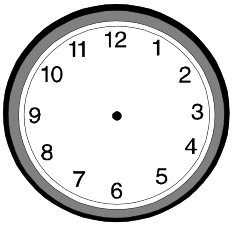
Show 25 minutes to 5 O'clock



LEARNER'S ACTIVITY

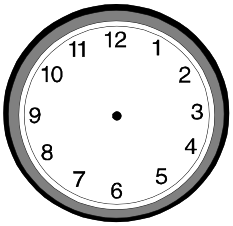
1 ***Show the following points of time on the clock drawn.***

(a)



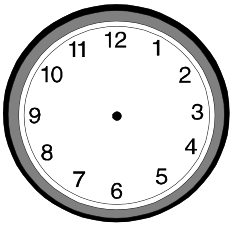
4 O'clock

(b)



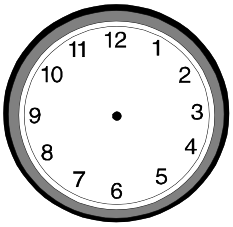
30 minutes past 3 o'clock

(c)



15 minutes to 7 o'clock

(d)



Half past 9 o'clock

2.	***Draw clock faces and show the points of time***	
(a)	2 o'clock	(b) 05 minutes to 4 o'clock
(c)	25 minutes to 9 o'clock	(d) 25 minutes past 8 o'clock
(e)	Half past 7 o'clock	(f) 10 minutes to 6 o'clock
(g)	10 minutes past 6 o'clock	

CORRECTIONS

Date : _____

LESSON 13: Changing hours to minutes

Duration is the time taken on doing something.

The unit measurements of time are

(i) Second
(ii) Minutes
(iii) Hours
(iv) Days
(v) Months
(vi) Year

Converting duration of hours into duration of minutes.

Steps taken

- ❖ Multiply the given duration in hours by 60 minutes.
- ❖ The products obtained are the minutes.
- ❖ You can also use repeated addition.

Example1:

Change 4 hours into minutes.

Required facts

1 hour = 60 minutes

4 hours = 60 x 4 minutes

= **240 minutes**.

or

1 hour = 60 minutes

4 hours = 60 minutes

4 hours = 60 minutes

60 minutes

+ 60 minutes

240 minutes

Example II:

Express $2\frac{1}{2}$ hours into minutes.

Required facts.

1 hour = 60 minutes

$2\frac{1}{2}$ hours = $\frac{5}{2}$ x 60 minutes

5 x 30 minutes

= **150 minutes**

Example III

Change 6 hours into minutes.

1 hour = 60 minutes

6 hour = 60 x 6

= 360 minutes

Example IV

Change $\mathbf{3}\frac{1}{3}$hrs to minutes

1 hour = 60 minutes

$\mathbf{3}\frac{1}{3}$ hours = $\left[60 \text{ x } \frac{10}{3}\right]$ minutes

(20 x 10) minutes

= **200 minutes**

LEARNER'S ACTIVITY

Change the following duration given into minutes.

(a)	3 hours	(b) 5 hours
(c)	$\mathbf{4}\frac{1}{2}$ hours	(d) $\frac{1}{2}$

(e)	7 hours	(f) 9 hours
(g)	**Complete the blank spaces** Hours: 2 | 6 | 1 Minutes: _____ | _____ | _____	

CORRECTIONS

Date : _____

LESSON 14: Converting minutes into hours

Note: When changing from a similar unit to a bigger unit we divide.

Steps taken

- Multiply the given minutes by $\frac{1}{60}$hours
- Divide correctly.

Example 1

Change 120 minutes into hours

Required facts.

1 minute = $\frac{1}{60}$hours

20 minutes = $\frac{1}{60}$x 120 hours

= **2 hours**

LEARNER'S ACTIVITY

1. ***Change the following duration into hours***

(a)	240 minutes	(b) 180 minutes
(c)	90minutes	(d) 600 minutes

(e)	270minutes	(f) 210 minutes
(g)	60 minutes	(h) 420 minutes
2.	**Complete correctly** Hours _____ 8 _____ Minutes 300 _____ 330	

CORRECTIONS

Date : _____

LESSON 15: Addition of time

Steps taken

- ❖ Identify the hours and minutes
- ❖ Changing minutes to hours when re-grouping.
- ❖ Add vertically

Examples

1.

Hrs	**Min**
4	30
+ 2	20
6	50

(2)

Hrs	**Min**
3	45
+ 2	30
6	15

LEARNER'S ACTIVITY

1.

Hrs	**Min**
2	20
+ 3	10

4.

Hrs	**Min**
2	30
+ 3	45

2.

Hrs	**Min**
4	15
+ 2	30

5.

Hrs	**Min**
6	15
+ 3	38

3.

Hrs	**Min**
5	25
+ 3	35

CORRECTIONS

Date : _____

LESSON 16: Addition of time

Steps taken

- ❖ Identify the hours and minutes
- ❖ Subtracting vertically

Examples: Subtract

1.

Hrs	**Min**
5	40
- 2	10
3	30

(2)

Hrs	**Min**
6	48
- 3	20
3	28

LEARNER'S ACTIVITY

(a)

Hrs	**Min**
6	35
- 2	12

(b)

Hrs	**Min**
4	56
-3	12

(c)

Hrs	**Min**
7	45
- 2	15

(d)

Hrs	**Min**
5	06
-1	02

CORRECTIONS

Date : _____

LESSON 17: Finding duration

Steps taken

- ❖ Identifying the starting time and ending time.
- ❖ Subtracting ending time minus starting time.
- ❖ Arranging the hours and minutes vertically.
- ❖ Make a conclusion as the answer.

Examples:

1. A maths lesson started at 8:30am and ended at 9:30am. How long was the lesson?

Duration = ending time - starting time.

Hrs	**Min**
9	30
- 8	30
1	**00**

The lesson took 1 hr

2. Peter left home at 7:00am and reached school at 7:40am. How long did he take on the way?

Duration = ending time - starting time.

Hrs	**Min**
7	40
- 7	00
0	**40**

Peter took 40 minutes on the way.

LEARNER'S ACTIVITY

1. A motorist left his home at 6:40am and reached his work place at 10:50am. How long did he take on the way?

2.	A science lesson started at 10:00am and ended at 11:00am. How long was the lesson?
3.	Mummy started preparing tea at 9:00am and served at 9:30am. How long did she take preparing tea?
4.	Nankya started her home work at 8:20pm and completed at 9:40pm. For how long did she take writing the homework?
5.	Football match started at 4:15pm and ended at 5:55pm. How long did the football match last?

CORRECTIONS

Date : _____

LESSON 18: Changing weeks to days

A day is a period of 24 hours.

A week is a period of seven days.

The following are the seven days of the week.

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Steps taken

- Multiply the number of weeks by 7

  The product obtained are the number of days.

Example 1:

Change the 3 weeks into number of days.

1 week = 7 days

3 weeks = 7 x 3days

= 21days.

Example (2) Express 12 weeks into days.

Solution

1 week = 7days.

12 weeks = 7 x 12

= 84 days

Example 3

How many days are in 5 weeks?

1 week = 7 days

5 weeks = 7 x 5

= 35 days

	Example 4 Nankya was in the village for 6 weeks. Change that time to days? 1 week = 7 days 6 weeks = 7 x 6 **= 42 days**		
	LEARNER'S ACTIVITY		
1.	Write down one day which starts with letter **"M"**	2.	How many days are in a week?
3.	What day of the week comes after Thursday?	4.	Fill in the missing letters We__nesd____y
5.	***Convert the following number of weeks into number of days***		
(a)	6 weeks	(b)	5weeks
(c)	7 weeks	(d)	13 weeks

(e)	9 weeks	(f)	4 week

6. **Fill in the blank spaces correctly.**

No. of week	8	10	11	12	14
No. of days	_____	_____	_____	_____	_____

CORRECTIONS

Date : _____

LESSON 19: Changing days into weeks

Steps taken

❖ Divide the number of days by 7.

The quotient got is the number of weeks

Example 1:

Change 28 days into weeks.

1 day = $\frac{1}{7}$ weeks

28 days = $\frac{1}{7}$ x 28 weeks

= 4 weeks

Example 2

Express 42 days into weeks

1 day = $\frac{1}{7}$ weeks

42 days = $\frac{1}{7}$ x 42 weeks

= 6 weeks

Example 3:

Change 14 days into weeks.

1 day = $\frac{1}{7}$ weeks

14 days = $\frac{1}{7}$ x 14 weeks

= 2 weeks

LEARNER'S ACTIVITY

Which day of the week comes:

(a)	before Friday	(b)	After Friday
(c)	before Wednesday	(d)	After Sunday

2.	***Change the following number of days into weeks***		
(a)	21 days	(b)	35 days
(c)	49 days	(d)	14 days
(e)	56 days	(f)	70 days
(g)	84 days	(h)	77 days

6. **Complete the blank spaces correctly.**

No. of week	_____	_____	_____	_____
No. of days	14	28	35	42

CORRECTIONS

Date : _____

LESSON 20: Changing years to months

- A month is a period of either 30 days or 31 days apart from the month of February.
- The months of the year are: January, February, March, April, May, June, July, August, September, October, November and December

Steps taken

- Multiply the number of years given by 12 months.
- The product obtained is the number of months.

Example 1:

How many months are in 4 years

1 year = 12 months

4 years = 12 x 4month

= 48 months

Example II: Calculate the number of months that make up 7 years.

1 year = 12 months

7 years = 12 x 7 months

= 84 months

Example III: What is the fifth month of the year?

The fifth month of the year is May.

Example IV: Calculate the number of months that make up 5 years.

1 year = 12 months

5 years = 12 x 5

= 60 months.

	LEARNER'S ACTIVITY		
1.	What is the 9th month of the year?	2.	Which month of the year comes after August?
3	What is the fourth month of the year?	4	What is the first month of the year?
5.	**Express the following number of years into number of months**		
(a)	3 years	(b)	13 years
(c)	11 years	(d)	3.4 years
(e)	108 years	(f)	120 years

CORRECTIONS

Date : _____

LESSON 21: Changing months into years

Steps taken

- Multiply the given number of months by fraction of $\frac{1}{12}$.
- Divide where applicable.
- Get the number of years

Example 1: How many years make up 36 months?

Change 28 days into weeks.

1 month $= \frac{1}{12}$ year

36 months $= \frac{1}{12} \times 36$ years

= 3 years.

Example 2:

Calculate the number of years that make up 60 months.

Facts given

60 is the number of months

The number of years in one month

solution

1 month $= \frac{1}{12}$ year

60 months $= \frac{1}{12} \times \overset{5}{\cancel{60}}$ years

= 5 years.

Example 3

How many years make up 48 months?

1 month $= \frac{1}{12}$ year

48 months $= \frac{1}{12} \times \overset{4}{\cancel{48}}$ years

= 4 years.

LEARNER'S ACTIVITY			
1.	What is the second month of the year?	2.	How many months make up a year?
3.	What is the last month of the year?	4.	What month comes after April?
5.	What month comes before June?		
6.	***Change the following number of months into years.***		
(a)	48 months	(b)	36 months
(c)	60 months	(d)	120 months

CORRECTIONS

Date : _____

TOPIC 3: LENGTH, MASS AND CAPACITY

LESSON 22: Reading a ruler in standard unit of metres, centimeters and millimetres

Definition: length is a measure of distance between any two places / points.

Length is measured in metres centimeters and millimeters.

We also use body parts like palms, feet, etc to measure length.

Rulers, strings and threads are used to collect length or measure.

Steps taken

- ✓ Select the starting point and read it as zero.
- ✓ Count the whole numbers and fractions.
- ✓ The ending point is the final value.

Example1: Give the value in cm of:

(i) x = 0.5cm

(ii) y = 2.3cm

(iii) r = 3cm.

Example II: Give the value in mm of:

(i) t = 5mm

(ii) z = 14mm

(iii) q = 20mm

(iv) r = 29mm

	LEARNER'S ACTIVITY
1. (a)	Give the value in cm of; (i) y = (ii) z = (iii) a = (iv) m = (v) p = (vi) q = (vii) r = (viii) t = (ix) z = (x) n =

CORRECTIONS

Date : _____

LESSON 23: ***Measuring perimeter of shapes using a ruler***

✓ Perimeter is the distance round the closed shape.

Steps taken

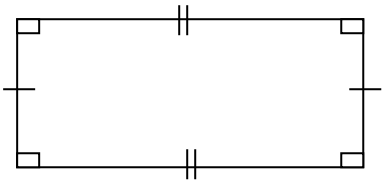
✓ Use a ruler and measure each side.

✓ Record the length of each side obtained.

✓ Add length altogether accurately.

✓ The sum obtained is perimeter

Example1: Using a ruler measure and find the perimeter a rectangle in cm.

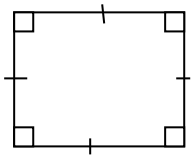


Perimeter = Length + Width + Length + Width

= 5cm + 2cm + 5cm + 2cm

= **14cm.**

Example II: Using a ruler measure the perimeter of the square in cm.

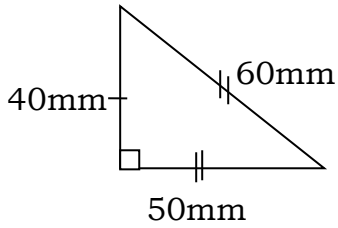


Perimeter = Side + Side + Side + Side

= 4cm + 4cm + 4cm + 4cm

= 16cm.

Example III: Using a ruler measure the perimeter of the triangle in mm.



Perimeter = Side + Side + Side

= 60mm + 40mm + 50mm

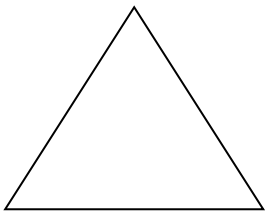
= 100mm + 50mm

= 150mm

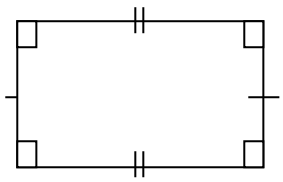
LEARNER'S ACTIVITY

1. ***Using a ruler, find the distance round by measuring in cm.***

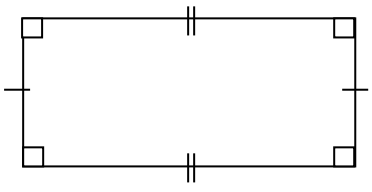
(a)



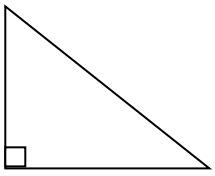
(b)

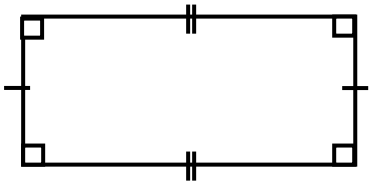
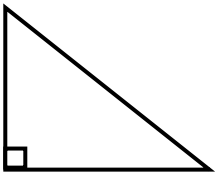
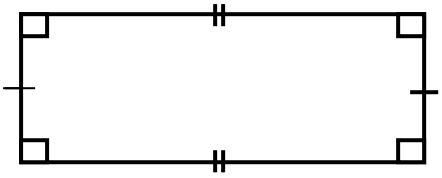
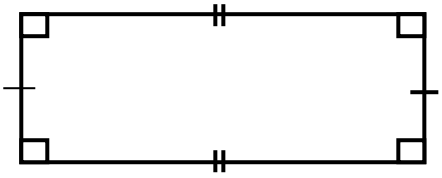
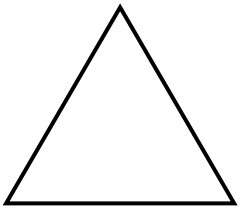


(c)



(d)



2.	***Use a ruler to measure the perimeter of the following shape in mm***
(a)	
(b)	
(c)	
(d)	
	

CORRECTIONS

Date : _____

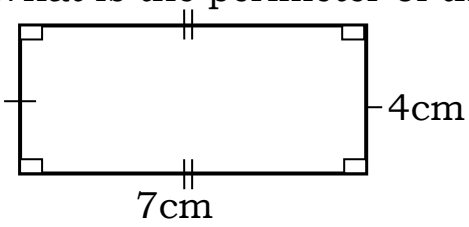
LESSON 24: ***Finding perimeter of the rectangle***

Steps taken

- ✓ Identifying the features.
- ✓ Writing the formula.
- ✓ Adding the sides.
- ✓ indicating the units

Example1:

What is the perimeter of the rectangle below?



Perimeter = Length + Width + Length + Width

= L + W + L + W

= 7cm + 4cm + 7cm + 4cm

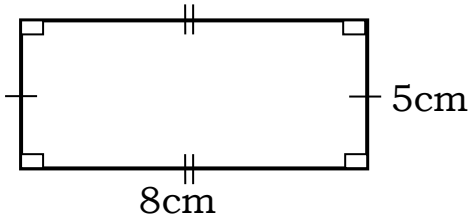
= 11cm + 11cm

= **22cm.**

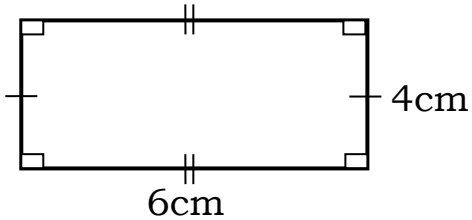
LEARNER'S ACTIVITY

Find the perimerimeter of the following rectangle

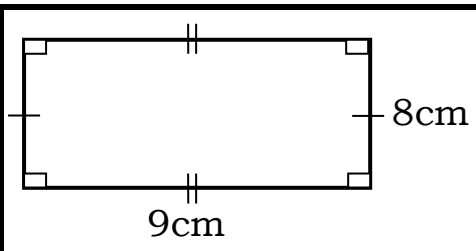
1.



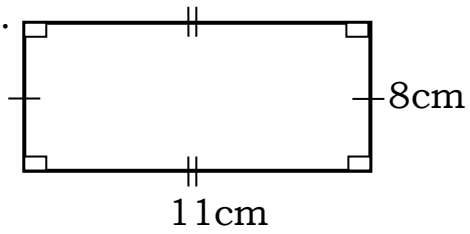
2.

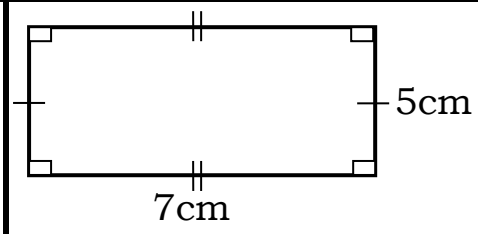


3.



4.





CORRECTIONS

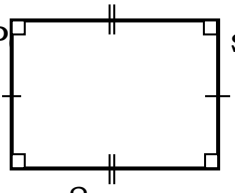
Date : _____

LESSON 25: Perimeter of a square

Steps taken

- ✓ Identifying the features of a square.
- ✓ Writing the formula.
- ✓ Adding the sides.
- ✓ Indicating the units used

Example

P 

side + side + side + side

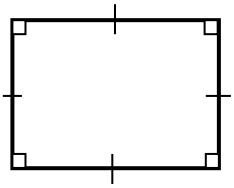
= 8cm + 8cm + 8cm + 8cm

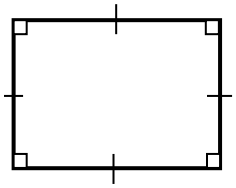
= 16cm + 16cm

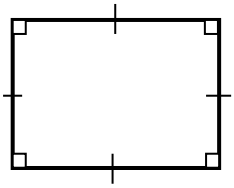
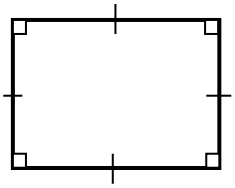
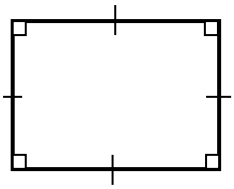
= 32cm

LEARNER'S ACTIVITY

Find the perimeter of the following square

1. 

2. 

3.	 6cm	4.  9cm
5	 7cm	

CORRECTIONS

Date : _____

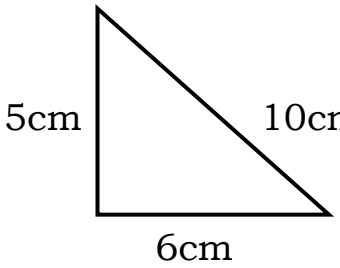
LESSON 26: Perimeter of a triangle

Steps taken

- ✓ Stating the formula.
- ✓ Adding the three sides.
- ✓ Showing the units in the answer.

Example 1

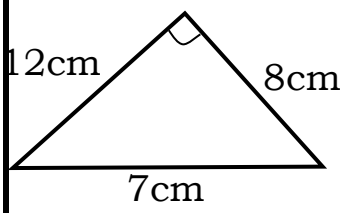
Perimeter = side + side + side



= 10cm + 5cm + 6cm

= 21cm

Example 2



Perimeter = side + side + side

= 7cm + 12cm + 8cm

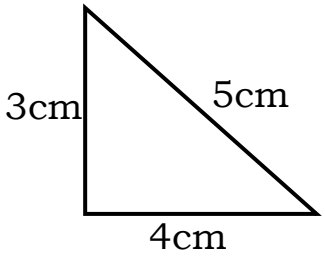
= 19cm + 8cm

= 27cm

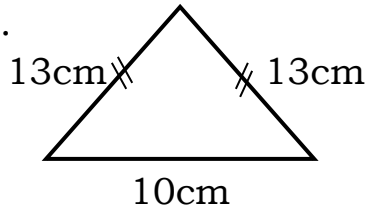
LEARNER'S ACTIVITY

Find the perimeter of the following triangles

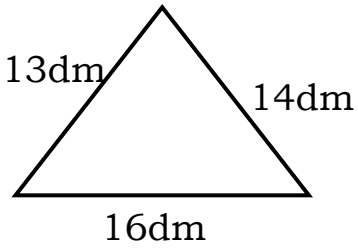
1.



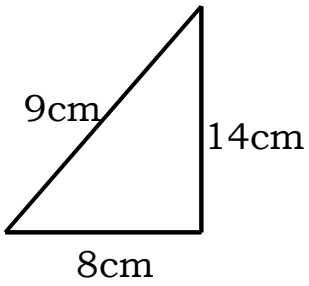
2.



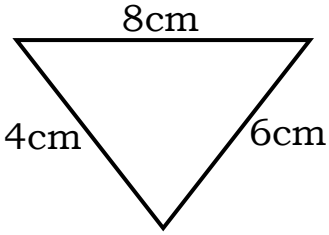
3.



4.



5



CORRECTIONS

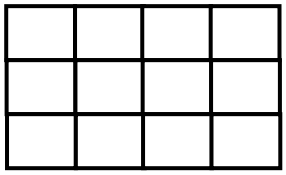
Date : _____

LESSON 27: Finding area of a rectangle

Steps taken

- ✓ Stating the formula.
- ✓ Use of standard units

1. **Examples**



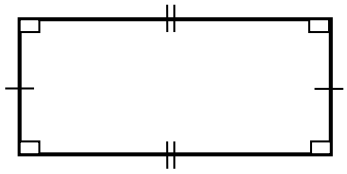
Area = boxes along length x boxes along width

= 4 units x 3 units

= 12 sq. units

or count the boxes and write the answer

= 12 square units.

(b) 

Area = L x W

= 8cm x 4cm

= **32sq. cm**

2. Find the area of a rectangle whose length is 4cm and width 2cm.

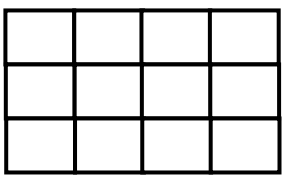
Area = L x W

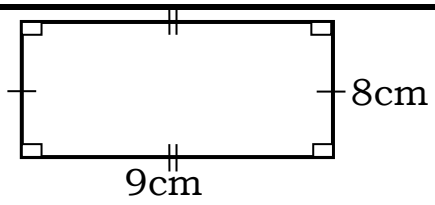
= 4cm x 2cm

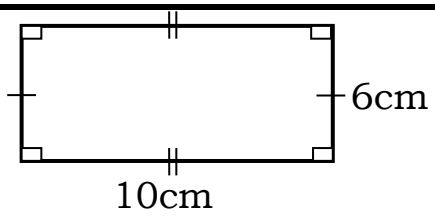
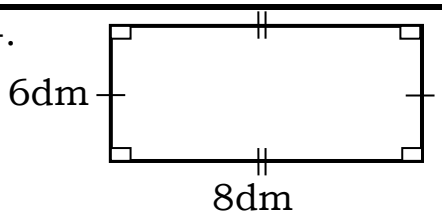
= 8sq.cm

LEARNER'S ACTIVITY

Work out the following

1. 

2. 

3.		4. 
5.	Calculate the area of a triangle whose length is 8cm and width is 3cm.	
6.	A rectangular garden measures 10m by 9m. Find its area.	

CORRECTIONS

Date : _____

LESSON 28: Finding area of a square

Steps taken

✓ Stating the formula.

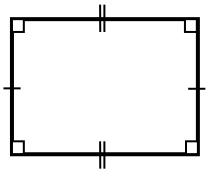
✓ Use of standard units

Examples

1. Find the area of the square

1	2	3
4	5	6
7	8	9

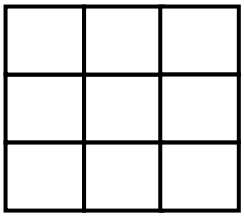
Area = 9square units

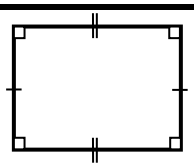
2. 

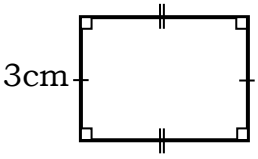
Area = L x W

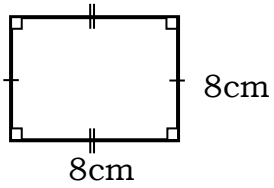
= 12cm x 12cm

= **144sq. cm**

1. 

2. 

3. 

4. 

5. Find the area of a square whose side is 6cm.

CORRECTIONS

Date : _____

LESSON 29: Measuring mass using kilograms and grams.

- ✓ Mass is the measure of heaviness or lightness of an object or somebody.
- ✓ The standard units of measuring mass are in kilograms and grams.
- ✓ One kilogram has 1000grams.
- ✓ Half a kilogram has 500grams.
- ✓ A quarter a kilogram has 250 grams.
- ✓ We use a weighing machine in measuring mass.
- ✓ Heavier objects or items are measured in kg.
- ✓ Lighter objects or items are measured in grams.

LEARNER'S ACTIVITY

1.	**Give the fraction in kg equivalent to mass in gm.**	
(a)	500gm	(b) 250gm
2.	Two half grams make ____kg	3. Two a quarter gms make ___kg.
4.(a)	Give the value of mass in grams in; $\frac{1}{2}$kg - _____	(c) $\frac{1}{4}$kg = _____
5.	Add: 500gm + 500gm.	

CORRECTIONS

Date : _____

LESSON 30: Solving word problems involving mass in kg and gm

Note: One kilogram has 1000gm

$\frac{1}{2}$ kg has 500gm

$\frac{1}{4}$ kg has 250gm

Example 1:

The mass of Jimmy is 62kg and mass of Joseph is 50kg. Work out their total mass.

62kg
+ 50kg
112kg

Example II:

The mass of Suzan is 43kg and mass of Judith is 49kg. Find the difference in their mass.

4 9kg
-4 3kg
6 kg

Example III:

Simon bought 2000gm of meat. How many half kg did he buy?

2,0ØØ = **4 half kg.**
5ØØ

LEARNER'S ACTIVITY

1. *Moses bought 1kg and 500gm of sugar. Write the mass he bought in mixed number.*

2.	*How many half kg make up 3kg?*	
3.	***Teddy weighs 65kg and Ruth weighs 72kg.***	
(a)	Calculate the sum of their mass	(b) Find the difference in their mass.
4.	**Add:** **kg** **gm** 2 300 + 3 400	5. **Subtract:** **kg** **gm** 8 870 - 7 250

CORRECTIONS

Date : _____

LESSON 31: Measuring capacity using litres and millilitres

Lesson hint

Note: Capacity is the measure of liquids (fluids)

- ✓ The basic standard units of measuring capacity is litres (L)
- ✓ One litre has 1000ml.
- ✓ Half a litre has 500ml.
- ✓ A quarter a litre has 250ml.

Example 1: What fraction is represented by 500ml

$500ml = \frac{1}{2}L$

2. How many milliliters are in $\frac{1}{2}$litres.

$1L = 1000ml$

$\frac{1}{2}L = \frac{1}{2} \times 1000ml$

$\frac{1}{2}L = 500ml$

LEARNER'S ACTIVITY

1.	**Write the fraction equivalent to capacity.**	
(a)	500ml	(b) 250ml
2.	How many milliliters make up $\frac{1}{4}$ a litre?	

3.	How many half litres make up one litre?
4.	Find the number of milliliters that make up $\frac{1}{5}$ a litre.

CORRECTIONS

Date : _____

LESSON 32: Solving word problems involving capacity in L and ml.

Note:

- ✓ One litre has 1000ml.
- ✓ $\frac{1}{2}$litre has 500ml
- ✓ $\frac{1}{4}$litre has 250ml.

Example 1: Tony has 500ml and Ronald has 300ml. Find the capacity both have together?

300ml
+ 500ml
800ml

Example 2: A tin has 2,000ml. How many 500ml bottles can be obtained?

$\frac{2,000}{500}$ = 4 bottles (500ml bottles).

LEARNER'S ACTIVITY

1.	Betty bought 4 litres and 500ml. State the capacity he bought in mixed number of litres.
2.	How many half litres make up 2 litres?

3.	***Kenneth collected 3 litres and 200ml of milk and Robinah collected 4 litres and 300ml of milk.***	
(a)	Find the sum of capacity of milk collected together.	(b) Write the total capacity collected in a mixed number in litres.
4(a)	**Add:** **L** **ML** 6 400 + 2 100 _____	(b) **Subtract:** **L** **ML** 7 800 - 2 300 _____

CORRECTIONS

Date : _____

LESSON 33: ALGEBRA

Topic: Equations with and without letters

Solving equations without letters in addition

Algebra is the topic that deals with known and unknown results.

Simple equations involving operation of addition with unknown.

Steps taken

- ✓ *Subtract the given value of the sum of the known and unknown.*
- ✓ *The difference is the value of the unknown.*

Example I: Fill in the blank space if;

$\square + 6 = \boxed{10}$

$= (10 - 6)$

$= 4$

$\square + 6 = 10 \quad \boxed{4}$

Example II: Complete the blank space.

$7 + \square = 12$

$= 12 - 7$

$= 5$

$7 + \boxed{5} = 12$

LEARNER'S ACTIVITY		
1.	***Fill in the missing value. (number)***	
(a)	☐ + 3 = 7	(b) 13 + ☐ = 20
(c)	15 + = 17	(d) ☐ + 6 = 14
(e)	☐ + 7 = 9	(f) 6 + ☐ = 11
(g)	☐ + 11 = 14	(h) 4 + ☐ = 13

(i)	19 + ☐ = 23	(j) ☐ + 14 = 41

CORRECTIONS

Date : _____

LESSON 34: Solving equations without letters in subtraction

Steps taken

- ✓ *Add the given known to the difference of the two.*
- ✓ *The sum obtained is the value of the blank space.*

Example I: Find the missing values.

$\square - 4 = 13$

$= 13 + 4$

$= 17$

Therefore $\boxed{17} - 4 = 13$

Example II: Fill in the blank space

$\square - 9 = 21$

$= 21 + 9$

$= 30$

$\boxed{30} - 9 = \mathbf{21}$

LEARNER'S ACTIVITY

1. ***Fill in the missing values.***

(a) $\square - 7 = 15$

(b) $\square - 9 = 27$

(c)	□ - 3 = 5	(d) □ - 11 = 18
(e)	□ - 14 = 19	(f) □ - 23 = 39
(g)	□ - 6 = 15	(h) □ - 7 = 10

CORRECTIONS

Date : _____

LESSON 35: Simple equations without letters in multiplication.

Steps taken

- ✓ *Divide the product by the given value.*
- ✓ *The quotient obtained is the value for the unknown.*

Example I: Find the missing value.

$\square \times 3 = 12$

$= 12 \div 3$

$= 4$

Therefore $\boxed{4} \times 3 = 12$

Example II: Fill in the blank spaces

$6 \times \square = 18$

$= 18 \div 6$

$= 3$

$6 \times \boxed{3} = \mathbf{18}$

LEARNER'S ACTIVITY

(a)	$\square \times 4 = 20$	(b) $7 \times \square = 21$

(c)	8 x ☐ = 32	(d) 5 x ☐ = 30

Date : _____

LESSON 36: Solving equations involving division without letters

Steps taken

- ✓ *Multiply the quotient by the given value.*
- ✓ *The product obtained is the value of unknown.*

Example I:

Fill in the missing value.

$\square \div 3 = 4$

$\square \div 3 = 4 \times 3$

$= 12$

Therefore $\boxed{12} \div 3 = 4$

Example 2:

$\square \div 4 = 20$

$= 20 \times 3$

$= 80$

$\boxed{80} \div 4 = 20$

LEARNER'S ACTIVITY

1. ***Fill in the blank spaces***

(a) $18 \div \square = 9$

(b) $27 \div \square = 4$

(c) $14 \div \square = 2$

(d) $15 \div \square = 5$

(e)	20÷ ☐ = 2	(f)	30÷ ☐ = 6
2.	***Fill in the blank space***		
(a)	☐ ÷4 = 2	(b)	☐ ÷3 = 15
(c)	☐ ÷5 = 4	(d)	☐ ÷5 = 5

CORRECTIONS

Date : _____

LESSON 37 :

Forming *and solving equations in addition without letters using simple word problems.*

Steps taken

- ✓ *Read the questions*
- ✓ *Interpret the question*
- ✓ *Write the equations.*

Examples 1:

Tom had some mangoes, when his father added him 5 more mangoes, he now has 12 mangoes, how many mangoes was he having at first.

☐ + 5 = 12

☐ + 5 - 5 = 12 - 5

☐ + 0 = 7

☐ = 7

Therefore, he had 7 mangoes at first

Examples 2:

When three is added to a certain number, the answer is 9. What is the number?

☐ + 3 = 9

☐ + 3 - 3 = 9 - 3

☐ + 0 = 6

☐ = 6

Therefore, the number is 6.

Examples 3:

The sum of a number plus 5 is 8. Find the number.

$\square + 5 = 8$

$\square + 5 - 5 = 8 - 5$

$\square + 0 = 3$

$\square = 3$

Therefore, the number is 3.

LEARNER'S ACTIVITY

1.	What number is added to 6 to get 12?
2.	Namukasa picked 2 pens on the way, her teacher added her more pens and she had 9 pens in total. How many pens did the teacher give her?
3.	When 3 is added to a number, the result is 13. What is the number?

4.	I think of a number, when 8 is added to the number the answer becomes 24. What is the number?
5.	Kato had 13 goats. his mother added him more goats to make 24. How many goats did the mothergive him?

CORRECTIONS

Date : _____

LESSON 38

Forming and solving equations of subtraction without letters using word problem.

<u>Steps taken</u>

- ✓ *Interpret the word problem.*
- ✓ *Make an equation.*
- ✓ *Solve accurately*

Examples.

1. Subtract 4 from a number, the answer you get is 2. Find the number?

☐ - 4 = 2

☐ - 4 - 4 = 2 + 4

☐ **= 6**

2. Take away 9 from a number. The result you get is 12. What is the number?

☐ - 9 = 12

☐ - 9 - 9 = 12 + 9

☐ **= 21**

3. Subtract 4 from a number, the answer you get is 2. Find the number?

☐ - 10 = 25

☐ - 10 - 10 = 25 + 10

☐ **= 35**

LEARNER'S ACTIVITY	
1.	Take away 6 from a number, the answer is 14. What is the number?
2.	Subtract 9 from a number, the result is 17. What is the number?
3.	Subtract 20 from a number, the answer you get is 43. What is the number?
4.	Stephen sold 24 eggs. If he remained with 16 eggs. How many eggs did he have?
5.	The difference between 7 and another number is 15. What is the other number?

CORRECTIONS

Date : _____

LESSON 39:

Forming and solving equations in multiplication without letters using simple word problems.

<u>Steps taken</u>

- ✓ *Make correct interpretation.*
- ✓ *Form the equation.*
- ✓ *Solve correctly.*

Example 1:

What number can be multiplied by 2 and you get 6 as the answer?

☐ x 2 = 6

☐ = 6 ÷ 2

☐ **= 3**

Example II:

Find the number that can be multiplied by 4 and you get 20 as the result?

☐ x 4 = 20

☐ = 20 ÷ 4

☐ **= 5**

LEARNER'S ACTIVITY	
1.	When a certain number is multiplied by 3, the result is 15. What is the number?
2.	What number is multiplied by 2 and the answer is 10?
3.	Aminah multiplied a number by 6 and her result was 18. What was the number?
4.	The product of two numbers is 36. If one of them is 9, what is other number?
5.	John got a product of two numbers as 32. If one of his number was 4, What is the second number?

CORRECTIONS

Date : _____

LESSON 40:

Forming and solving equations of division without letters using word problems.

Steps taken

- ✓ *Interpret the word problem.*
- ✓ *Make an equation.*
- ✓ *Solve correctly.*

Examples:

1. What number can be divided by 4 and gives5 as the result?

$\square \div 4 = 5$

$\square = 5 \times 4$

$\square$ **= 20**

$4 \times \square = 5 \times 4$

4

$\square = 20$

2. The quotient of two numbers is 6. If one of the numbers is 3, what is the second number?

$\square \div 3 = 6$

$\square = 6 \times 3$

$\square$ **= 18**

$3 \times \square = 6 \times 3$

3

$\square = 18$

3. When a number is divided by 8, the result is 2, what is the number?

$\square \div = 2$

$\square = 2 \times 8$

$\square$ **= 16**

LEARNER'S ACTIVITY	
1.	What number is divided by 4 to give 3?
2.	When a number is divided by 3 the answer is 6. What is the number?
3.	Some sweets were shared among 4 boys and each boy got 6. How many sweets did they share?
4.	The quotient of two numbers is 5, if one of the numbers is 2, find the other number?
5.	What number can be divided by 8 and you get 4 as the result?

CORRECTIONS

