



P.2 MATHEMATICS SELF – STUDY LESSONS SET 2

LESSON 1

Topic : Operations on whole numbers

Sub – Topic: Word application using multiplication.

Learning outcome

By the end of this lesson, you should be able to:

- Read the word application.
- Interpret the word application.
- Multiply to solve the word application.

Introduction:

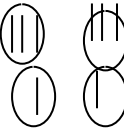
- Let us begin this lesson by reciting table 2.
- In the previous lessons, we have learnt how to multiply numbers and this lesson is still on the same.

Application of words in Multiplication

1. One fly has 2 wings. How many wings do 3 flies have?

$$\begin{array}{r} 2 \\ \times 3 \\ \hline 6 \text{ wings} \end{array}$$



2. A rabbit has 2 eyes. How many eyes do 13 rabbits have?

$$\begin{array}{r} 1 \quad 3 \\ \times \quad 2 \\ \hline 2 \quad 6 \text{ eyes} \end{array}$$


- Since multiplication is repeated addition, you can work out such a number using addition. How? Draw 3 groups where each group represents a fly and in each group draw 2 tallies and these represent the wings each fly has. Count the tallies to give you the answer.

- use the same approach in other examples.

3. A bicycle has 2 wheels. How many wheels do 10 bicycles have?

$$\begin{array}{r} 1 \quad 0 \\ \times \quad 2 \\ \hline 2 \quad 0 \text{ wheels} \end{array}$$


Evaluation

1. A fly has 2 wings. How many wings do 5 flies have?
2. A bird has 2 wings. How many wings do 8 birds have?
3. A bicycle has 2 wheels. How many wheels do 4 bicycles have?
4. A cow has 2 eyes. How many eyes do 12 cows have?
5. A boy has 2 legs. How Many legs do 12 boys have?
6. A pair has 2 shoes. How many shoes are in 11 pairs?
7. A rabbit has 2 ears. How many ears do 13 rabbits have?
8. There are 2 balls in each box. How many balls are there in 4 boxes?

LESSON: 2

TOPIC: Operations on whole numbers

SUB- TOPIC: Multiplication using repeated addition.

Learning outcomes

By the end of this lesson, you should be able to:

- Multiply using repeated addition.

Multiplication (using repeated addition)

- Multiplication is repeated addition since the product/result can be got by adding the items in the formed groups.
- In an expression such as 3×4 , 3 represents the number of groups and 4 represents the items in each group.
- Therefore, the first number represents the number of groups and the second number represents the number of items in each group.

Examples

1. Work out the following using repeated addition.

a) $3 \times 4 = 3$ groups of 4

$$= 4 + 4 + 4$$

$$= 12$$

b) $2 \times 6 = 2$ groups of 6

$$= 6 + 6$$

$$= 12$$

c) $3 \times 5 = 3$ groups of 5

$$= 5 + 5 + 5$$
$$= 15$$

Exercise

Work out the numbers below

1. $5 + 5 + 5 + 5 = \text{-----}$

2. $3 + 3 + 3 + 3 + 3 = \text{-----}$

3. $4 + 4 + 4 + 4 + 4 = \text{-----}$

4. Work out the numbers below using repeated addition

(a) $4 \times 5 = \text{-----}$

(b) $3 \times 7 = \text{-----}$

(c) $6 \times 4 = \text{-----}$

5. Fill in the missing number by identifying the group and the repeated number.

(a) $6 + 6 + 6 = \text{---} \times \text{---}$

(b) $5 + 5 + 5 + 5 = \text{---} \times \text{---}$

6. Complete the table.

x	3	4
2	—	—
5	—	—

LESSON 3

TOPIC: Whole numbers

SUB – TOPIC: Writing figures in words.

Learning outcomes

By the end of the lesson, you should be able to:

- Read and write number names
- Write place values of digits correctly.
- Read and write 3-digit numbers with zero in the middle.

Introduction:

Remind your self about number names by clapping your hands from 1 to 20.

CONTENT: Writing figures in words

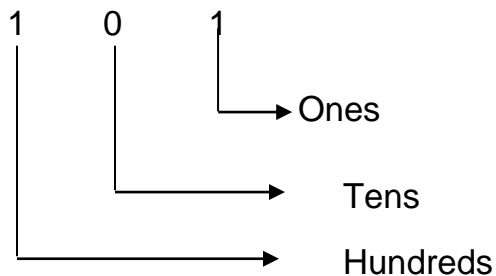
Writing place values of numbers and number names

Note

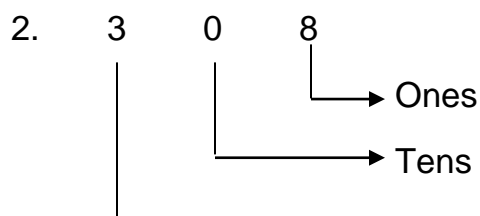
- **Place value** means the position of a digit in a number.
- The first digit on the right-hand side of any whole number is in the place value of **ones**

Examples.

1. Write 101 in words.



One hundred two

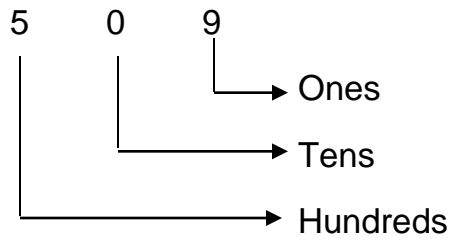


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- ❖ When reading numbers with 0 in the middle we do not read the 0.
 - ❖ Read the hundreds and then the ones.
 - ❖ The tens are not written/ read since they do not have a value

—————→ Hundreds

Three hundred eight

3.



Five hundred nine

Evaluation: Write the following numbers in words

1. 203
2. 306
3. 605
4. 403
5. 509

6. 701
7. 104
8. 607
9. 805
10. 302

LESSON 4

TOPIC: Whole numbers

SUB – TOPIC: Writing number names

Learning outcomes

By the end of this lesson, you should be able to:

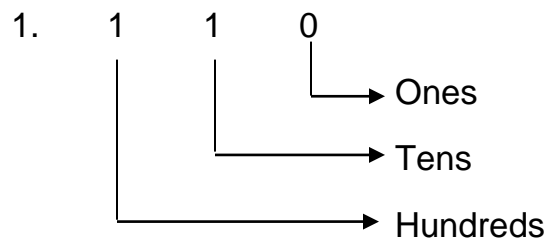
- Read 3 digit numbers with 0 at the end.
- Write place values of 3 digit numbers.
- Write 3 digits No. with 0 at the end.

Writing number names of 3 digit numbers with 0 at the end.

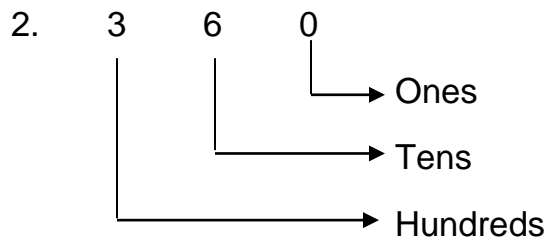
Examples

Write the numbers below in words.

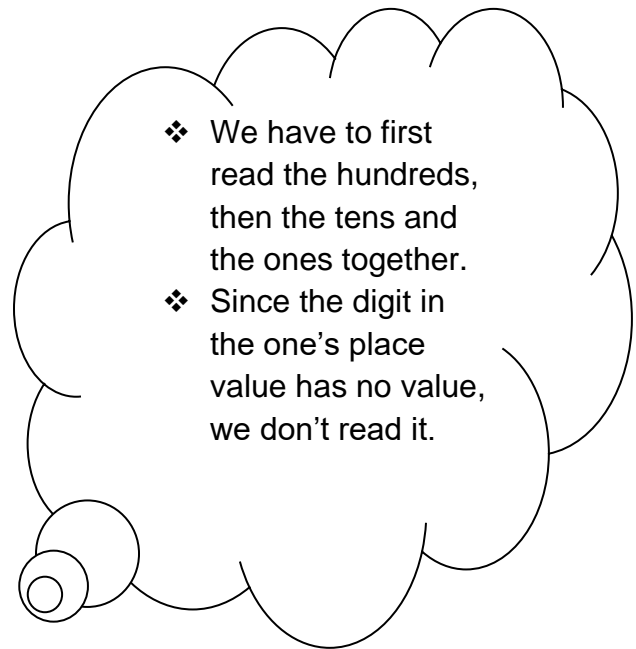
1. 110



One hundred ten



Three hundred sixty



Evaluation: Write these numbers in words

1. 210

2. 430

3. 390

4. 540

5. 650

6. 870

7. 480

8. 990

9. 760

10. 120

Lesson 5

TOPIC : Whole Numbers

SUB – TOPIC : Reading three digit numbers without a zero.

Learning outcomes

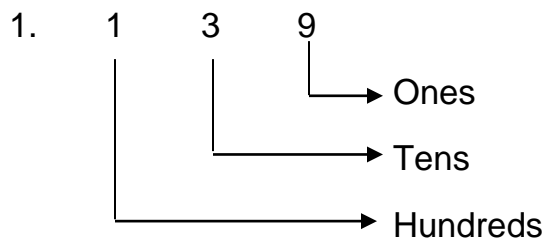
By the end of this lesson, you should be able to:

- Write place values of 3 digit numbers.
- Write number names of 3 digit numbers without zero

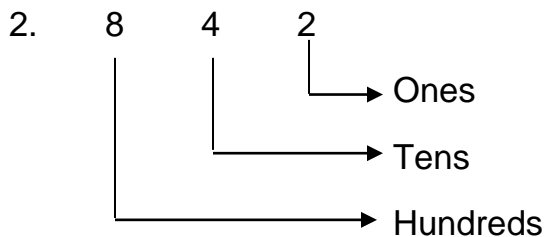
INTRODUCTION : Mental work

$$2 + 0 = \quad 2 \times 0 = \quad 2 \div 1 = \quad 2 + 1 =$$

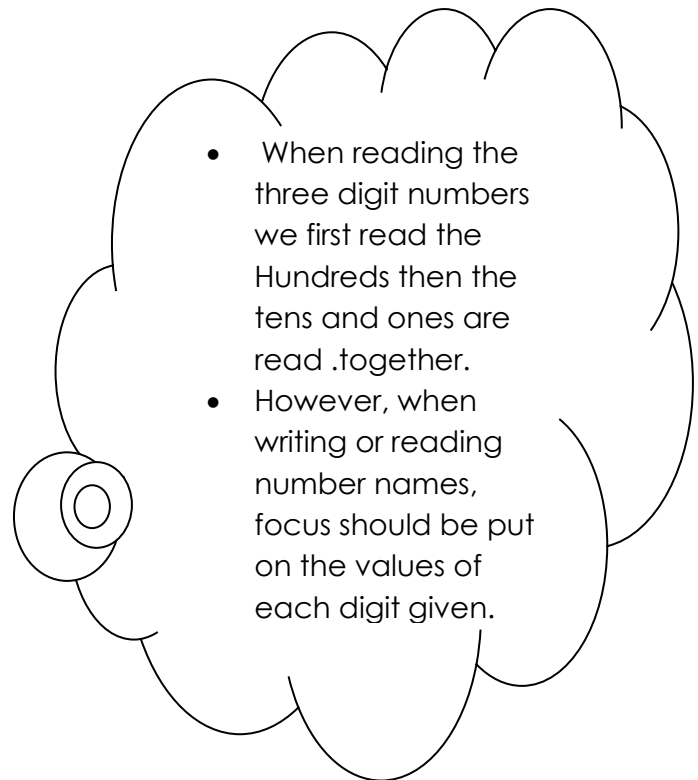
CONTENT : Reading and writing 3 digit numbers without zero in words



One hundred thirty nine



Eight hundred forty two



Evaluation: Write these numbers in words

1. 839

2. 567

3. 214

4. 311

5. 967

6. 728

7. 673

8. 555

9. 315

10. 999

LESSON 6

TOPIC: Whole Numbers

SUB – TOPIC: Reading and writing number names in figures.

Learning outcomes

By the end of the lesson, you should be able to

- Read number names.
- Write number names into figures.

Introduction:

- Let's start our lesson with this mental work.

Mental work

Write the place values of each digit in the 537.

CONTENT: Reading and writing number words in figures.

Examples

Write the numbers below in figures

1. Four hundred one

Four hundred = 400

One = + 1

401

2. One hundred sixteen

One hundred = 1 0 0

Sixteen = + 16

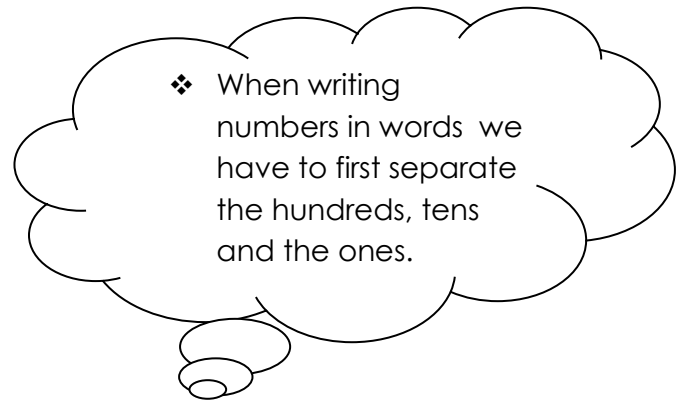
= 116

3. Nine hundred / twenty

Nine hundred = 900

twenty = + 20

= 920



Evaluation:

Write the following in figures

1. One hundred seven
2. Six hundred thirty eight
3. Seven hundred fifty
4. Nine hundred forty-six.
5. Three hundred thirty-three
6. Seven hundred thirteen
7. Five hundred two

LESSON 7

TOPIC: Whole Numbers

SUB - TOPIC: Addition of 2 digit numbers

Learning outcomes

By the end of the lesson, you should be able to: :

- Add 2 digit numbers to 1 digit vertically with regrouping.
- Count accurately

INTRODUCTION : Count in twos 2, 4, 6, 8,..... upto 20.

CONTENT : Addition of 2 digit numbers

Examples.

Add the numbers correctly.

1. $16 + 7 = \underline{23}$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 1^1 \quad 6 \\ + \quad \quad 7 \\ \hline \underline{2} \quad \underline{3} \end{array}$$

S.W

$$\begin{array}{l} \text{//////} + \text{//////} = 13 \\ \text{/ + /} = 2 \end{array}$$

2. $26 + 4 = \underline{30}$

S.W

- $6 + 7 = 13$. In this case you should write 3 under ones and carry/regroup 1 to the tens place value.
- Add the tens to get a final answer.
- Follow through example 2 and example 3 to guide you do the activity.

$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 21 \quad 6 \\
 + \quad \underline{\quad 4} \\
 \underline{\underline{3 \quad 0}}
 \end{array}$$

3. $15 + 8 = 23$

$$\begin{array}{r}
 \text{T} \quad \text{O} \\
 1 \quad 5 \\
 + \quad \underline{\quad 8} \\
 \underline{\underline{2 \quad 3}}
 \end{array}$$

$$//// + /// = 10$$

$$// + / = 3$$

S.W

$$//// + ////////// = 13$$

$$/ + / = 2$$

Activity

Add these

1. $18 + 6 =$
2. $23 + 8 =$
3. $55 + 5 =$
4. $39 + 9 =$
5. $41 + 9 =$

LESSON 8

TOPIC: Whole numbers

SUB – TOPIC: Addition of two-digit numbers

Learning outcomes

By the end of the lesson, you should be able to:

- Add vertically
- Arrange numbers vertically according to place value
- Re-group correctly.

CONTENT: Addition of two-digit numbers with regrouping.

1. $12 + 18 = \underline{30}$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 1^1 \quad 2 \\ + \underline{1 \quad 8} \\ \underline{3 \quad 0} \end{array}$$

S.W

$$\text{//} + \text{// // // // //} = 10$$

$$\text{/} + \text{/} + \text{/} = 3$$

2. $38 + 46 = 84$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 3^1 \quad 8 \\ + \underline{4 \quad 6} \\ \underline{8 \quad 4} \end{array}$$

S.W

$$\text{// // // // //} + \text{// // // //} = 14$$

$$\text{/} + \text{//} + \text{//} = 8$$

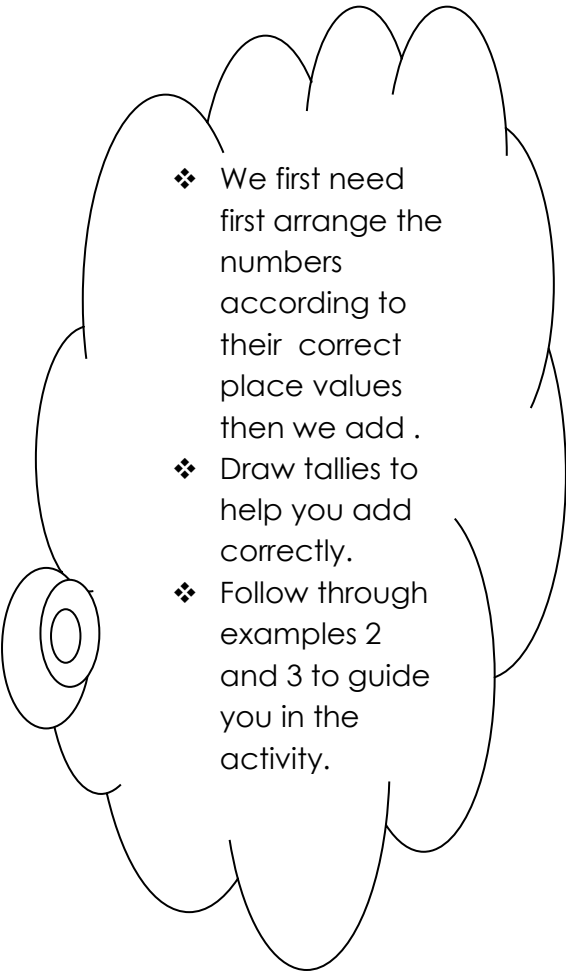
3. $54 + 17 =$

$$\begin{array}{r} \text{T} \quad \text{O} \\ 5^1 \quad 4 \\ + \underline{1 \quad 7} \\ \underline{7 \quad 1} \end{array}$$

S.W

$$\text{// // //} + \text{// // // // //} = 11$$

$$\text{/} + \text{// // // //} + \text{/} = 7$$

- 
- ❖ We first need first arrange the numbers according to their correct place values then we add .
 - ❖ Draw tallies to help you add correctly.
 - ❖ Follow through examples 2 and 3 to guide you in the activity.

Evaluation: Add these numbers

1. $23 + 18 =$
2. $65 + 25 =$
3. $24 + 18 =$
4. $55 + 48 =$
5. $32 + 18 =$

Lesson 9

TOPIC : Whole numbers.

SUB – TOPIC: Addition of word application.

Learning outcomes

By the end of the lesson, you should be able to:

- Read word problems carefully.
- Write word problems correctly.
- Arrange vertically to add.

Addition of word application

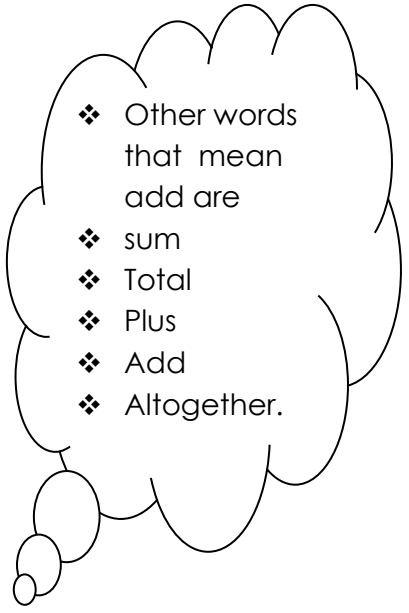
Examples

1. Jane had 28 apples. Sarah gave her 5 more apples. How many apples did she have altogether?

$\begin{array}{r} 28 \\ + 05 \\ \hline 33 \end{array}$	<p style="text-align: center;">S.W</p> $\begin{array}{l} \text{ } + \text{ } = 13 \\ \text{I} + \text{II} = 3 \end{array}$
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2. Luweero town ate 35 fish on Monday. He ate more 17 on Tuesday. How many fish did Luweero eat altogether?

$\begin{array}{r} 35 \\ + 17 \\ \hline \end{array}$	<p style="text-align: center;">S.W</p> $\begin{array}{l} \text{ } + \text{ } = 12 \\ \text{I} + \text{III} + \text{I} = 5 \end{array}$
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- ❖ Other words that mean add are
 - ❖ sum
 - ❖ Total
 - ❖ Plus
 - ❖ Add
 - ❖ Altogether.

5 2 Fish

Activity

1. Bumba had 16 books. His father gave him 5 more books. How many books does Bumba have altogether?
2. Tamale has 19 cakes. Riana has 12 cakes. How many cakes do they have altogether?
3. Akello had 35 beads. He got 16 more beads. How many beads has Akello now?
4. What is the sum of 5 and 9?
5. 15 trees plus 26 trees equals _____

Lesson 10

TOPIC: Operations on whole numbers.

SUB – TOPIC: Subtraction of 2 digit numbers.

Learning outcomes

By the end of the lesson, you should be able to:

- Subtract with re-grouping.

Introduction:

- In our day to day life, we find situations when you have little yet you need more to solve any problem.
- Take this example, if you have 2 pens and your brother asks for 5 pens, how will you be able to give your brother the 5 pens that he wants without stealing?
- In such a case, you will be required to borrow some pens from a friend or any other person at home.
- The borrowing done is called regrouping in mathematics.

Subtraction of 2 digit numbers with re-grouping

Examples

Subtract the following numbers correctly

$$\begin{array}{r} \text{T} \quad \text{O} \\ | \quad \quad \\ \cancel{2} \quad 13 \\ - \quad 0 \quad 7 \\ \hline \end{array} \quad \Bigg/ \quad \begin{array}{l} \text{side work} \\ \cancel{0} \cancel{0} \cancel{0} \cancel{0} \cancel{0} \cancel{0} \cancel{0} \cancel{0} \cancel{0} \cancel{0} \cancel{0} \\ 0 \end{array}$$

- When subtracting 2 digit numbers, you have to begin with the ones place value.
- $3 - 7 = ?$ You find that 3 is less than 7 and in this case you have to regroup or borrow one group of tens from 2.
- When you add a group of tens to 3, you get 13 and its from the 13 that you subtract from.
- Follow through in the next examples to guide you in the activity.

$$\underline{1 \quad 6}$$

2. $52 - 7 = 16$

T	O
$\overset{ }{2}$	13
$- \overset{ }{0}$	$\underline{7}$
$\underline{1}$	$\underline{6}$

S.W

0000000000000000
0

3. $70 - 9 = 61$

T	O
6	10
$\cancel{7}$	$\underline{9}$
$- \underline{0}$	$\underline{9}$
$\underline{6}$	$\underline{1}$

S.W

~~0000000000000000~~
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Evaluation: Subtract correctly

1. $31 - 6 =$

2. $93 - 8 =$

3. $52 - 7 =$

4. $80 - 6 =$

5. $74 - 5 =$

6. $68 - 4 =$

