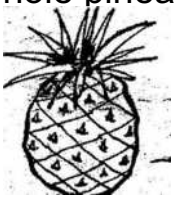
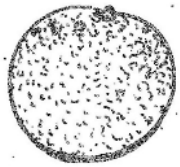
SET III

P5 HOLIDAY WORK – MATHEMATICS TERM 2, 2020

Name: …… **Class**: ……...

A whole is a complete thing

Examples wholes

A whole pineapple 	A whole onion 	A whole orange 

A **fraction** – Is a part of a whole. We get fractions by dividing a whole into a number of parts.

A fraction has 2 parts i.e Numerator and Denominator.

Numerator: - Is the top/upper part of a fraction.

Denominator: - Is the bottom/lower part of a fraction.

Example

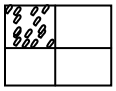
In the fraction $\frac{2}{5}$; 2 is the numerator and 5 is the denominator

Note:

The **denominator** tells the total number of Parts a whole has been divided into.

The **numerator** tells the number of parts that are being considered.

Illustration

In the diagram  , 1 out of the 4 parts is shaded (considered) thus the shaded fraction is $\frac{1}{4}$ in the above diagram, 3 out of the 4 parts are un shaded (Considered) thus the un shaded fraction is $\frac{3}{4}$.

Assignment 1

1. What is a whole?

2. Name and draw any two examples of wholes.

3. What is a fraction?

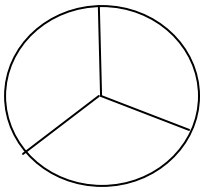
4. How do we get fractions?

5. A fraction has 2 parts; the top part of a fraction is the _____

   and the bottom part of the fraction is the _____

6. Use **numerator** or **denominator,** in the fraction $\frac{3}{6}$, 3 is the _____ and 6 is the _____

7. Describe the shaded parts in the diagram below

(a) 

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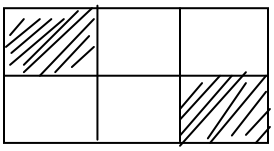
(b) 

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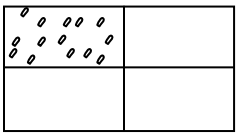
8. Describe the un shaded parts



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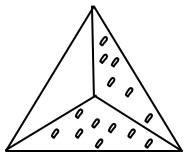

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9. Draw diagrams and shade the following fractions

(a) $\frac{3}{7}$

(b) $\frac{2}{5}$

TYPES OF FRACTIONS

There are three types of fractions

1) Proper fractions
2) Improper fractions
3) Mixed fractions

Definitions and examples

1) **Proper fractions** – are the fractions whose numerators are smaller than the denominators.

Examples $\frac{3}{4}$ $\frac{1}{2}$ $\frac{10}{15}$ $\frac{95}{100}$ …….

2) Improper fractions – are the fractions whose numerators are greater than or equal to the denominators.

Examples $\frac{9}{2}$ $\frac{20}{6}$ $\frac{7}{3}$ $\frac{5}{5}$ …….

3) Mixed fractions – are the fractions which have whole numbers and proper fractions.

Examples $1\frac{3}{5}$ $3\frac{2}{7}$ $10\frac{1}{2}$ $5\frac{4}{7}$

Note: In the Fraction $1\frac{3}{5}$, **1** is the whole number
3 is the numerator
5 is the denominator

Assignment 2

1. What are proper fractions?

2. Identify four examples of proper fractions.

3. What are improper fractions?

4. Name four examples of improper fractions.

5. What are mixed fractions?

6. Identify four examples of mixed fractions.

7. Name the type of fractions given below;

$1\frac{3}{9}$ $\frac{20}{7}$

_____ _____

$\frac{2}{3}$

_____

8. Write the following fractions in words.

(a) $\frac{1}{2}$

(b) $\frac{3}{8}$

(c) $\frac{5}{3}$

(e) $\frac{7}{2}$

(f) $\frac{4}{4}$

(g) $\frac{4}{5}$

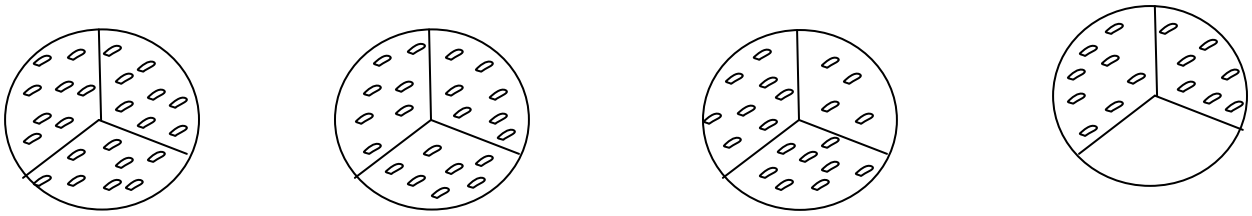
(d) $3\frac{1}{4}$ (h) $7\frac{3}{10}$

Changing Mixed fractions to Improper fractions

Examples

$3\frac{2}{3}$ to an improper fraction.

Method 1 (Illustration Method)



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

$$\frac{(3+3)+(3+2)}{3} = \frac{6+5}{3}$$

$$= \frac{11}{3}$$

Method 2 (Multiplication and addition)

$$3\frac{2}{3} \quad \frac{(3 \times 3)+2}{3} = \frac{9}{3} + \frac{2}{3}$$

$$= \frac{9+2}{3}$$

$$= \mathbf{\frac{11}{3}}$$

Assignment 3

1. Use the illustration method to change the following to improper fractions.

   (a) $1\frac{3}{4}$

   (b) $2\frac{1}{2}$

   (c) $3\frac{1}{3}$

2. Use the multiplication and addition method to change the following to improper fractions.

   (a) $8\frac{2}{3}$

   (d) $6\frac{1}{2}$

(b) $9\frac{2}{5}$

(e) $12\frac{2}{4}$

(c) $10\frac{3}{4}$

(f) $23\frac{1}{6}$

Changing Improper Fractions to Mixed Fractions

Examples

Convert $\frac{9}{2}$ to a mixed fraction

Method 1 (Splitting method)

$$\frac{9}{2} = \left(\frac{1}{2}+\frac{1}{2}\right)+\left(\frac{1}{2}+\frac{1}{2}\right)+\left(\frac{1}{2}+\frac{1}{2}\right)+\left(\frac{1}{2}+\frac{1}{2}\right)+\frac{1}{2}$$

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

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

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

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

$\therefore \frac{\mathbf{9}}{\mathbf{2}} = \mathbf{4}\frac{\mathbf{1}}{\mathbf{2}}$

Method 2 (Long division method)

$\frac{9}{2} = 2\overline{)\,9}$ (4, -8, remainder 1)

$\therefore \frac{9}{2} = 4\frac{1}{2}$

Assignment 4

1. Use the splitting method to change the following to mixed fractions

(a) $\frac{10}{3}$

(c) $\frac{5}{2}$

(b) $\frac{9}{4}$

(d) $\frac{7}{5}$

2. Use the long division method to change the following to mixed fractions

(a) $\frac{23}{7}$

(c) $\frac{17}{7}$

(b) $\frac{15}{6}$ (d) $\frac{49}{5}$

(e) $\frac{20}{3}$ (f) $\frac{53}{10}$

Equivalent Fractions

Equivalent means same or equal.

Equivalent fractions – are different fractions which are equal in value.

Or: **Equivalent fractions** – are different fractions but of the same value when reduced to their simplest form.

Finding Equivalent Fractions by Multiplying

Note: Multiply both the numerator and denominator by the same counting number.

Examples

1) Find the next four equivalent fractions of $\frac{3}{4}$

$\frac{3}{4} = \frac{3 \times 2}{4 \times 2} \quad \frac{3 \times 3}{4 \times 3} \quad \frac{3 \times 4}{4 \times 4} \quad \frac{3 \times 5}{4 \times 5}$

$\frac{3}{4} = \frac{6}{8} \quad \frac{9}{12} \quad \frac{12}{16} \quad \frac{15}{20}$

2) What are the next three equivalent fractions of $\frac{2}{7}$?

$\frac{2}{7} = \frac{2 \times 2}{7 \times 2} \quad \frac{2 \times 3}{7 \times 3} \quad \frac{2 \times 4}{7 \times 4}$

$\frac{2}{7} = \frac{4}{14} \quad \frac{6}{21} \quad \frac{8}{28}$

3) Use equivalent fractions to find the missing numbers in boxes.

a) $\frac{3}{5} = \boxed{\frac{18}{30}}$ $\frac{3 \times 2}{5 \times 2}$, $\frac{3 \times 3}{5 \times 3}$, $\frac{3 \times 4}{5 \times 4}$, $\frac{3 \times 5}{5 \times 5}$, $\frac{3 \times 6}{5 \times 6}$

$\frac{6}{10} \quad \frac{9}{15} \quad \frac{12}{20} \quad \frac{15}{25} \quad \boxed{\frac{18}{30}}$

b) $\frac{2}{3} = \boxed{\frac{8}{12}}$ $\frac{12}{18}$ $\frac{2 \times 2}{3 \times 2} = \frac{4}{6}$ $\frac{2 \times 4}{3 \times 4} = \boxed{\frac{8}{12}}$ $\frac{2 \times 6}{3 \times 6} \boxed{\frac{12}{18}}$

$\frac{2 \times 3}{3 \times 3} \quad \frac{6}{9} \quad \frac{2 \times 5}{3 \times 5} = \frac{10}{12}$

Assignment 5

1. What are equivalent fractions?

2. What are the next five equivalent fractions of $\frac{4}{5}$

3. Find the next four equivalent of $\frac{3}{10}$

4. Complete the sequence below.

a) $\frac{5}{7}$, $\frac{10}{14}$, $\frac{15}{21}$, _____, _____

b) $\frac{1}{6}$, $\frac{2}{12}$, $\frac{3}{18}$, $\frac{4}{24}$ _____, _____

5. Use equivalent fractions to fill in the missing numbers.

a) $\frac{2}{3} = \frac{\square}{9} = \frac{40}{\square}$

b) $\frac{6}{15} = \frac{\square}{30}$

Reducing Fractions to their lowest Terms by Prime Factorising

Guidelines

- Prime factorise both numerators and denominators using prime numbers.
- Express the prime factors in multiplication form.
- Cancel Common factors.

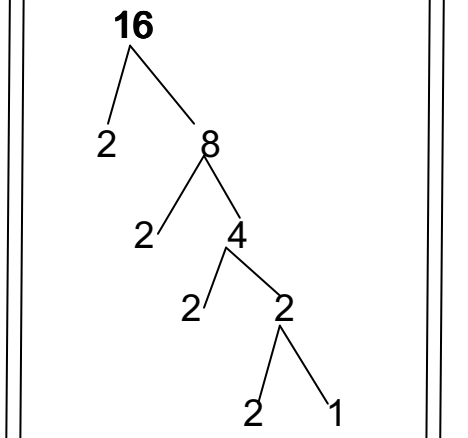
Examples

1. Reduce $\frac{\mathbf{16}}{\mathbf{20}}$ to its lowest/simplest form.

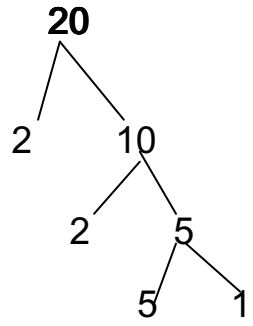
$$\frac{16}{20} = \frac{\overset{1}{\cancel{2}} \times \overset{1}{\cancel{2}} \times 2 \times 2}{\underset{1}{\cancel{2}} \times \underset{1}{\cancel{2}} \times 5}$$

$$\frac{16}{20} = \frac{1 \times 1 \times 2 \times 2}{1 \times 1 \times 5}$$

$$\mathbf{\frac{16}{20} = \frac{4}{5}}$$



16 = 2 x 2 x 2 x 2



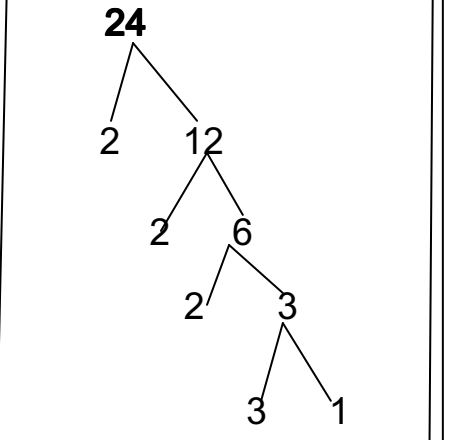
20 = 2 x 2 x 5

2. Reduce $\frac{\mathbf{24}}{\mathbf{9}}$ to its lowest/simplest form.

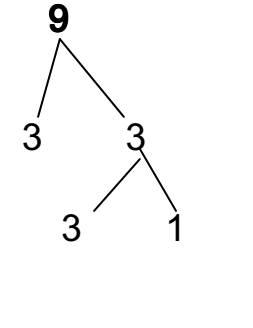
$$\frac{24}{9} = \frac{2 \times 2 \times 2 \times \overset{1}{\cancel{3}}}{3 \times \underset{1}{\cancel{3}}}$$

$$\frac{24}{9} = \frac{2 \times 2 \times 2 \times 1}{3 \times 1}$$

$$\mathbf{\frac{24}{9} = \frac{8}{3}}$$



24 = 2 x 2 x 2 x 3



9 = 3 x 3

Assignment 6

Reduce the fractions below to their simplest forms by prime factorising.

a) $\frac{4}{12}$

b) $\frac{15}{20}$

c) $\frac{18}{30}$

d) $\frac{6}{9}$

e) $\frac{9}{15}$

f) $\frac{20}{8}$

Reducing Fractions to their simplest form using the Greatest Common Factor (G.C.F)

Guidelines

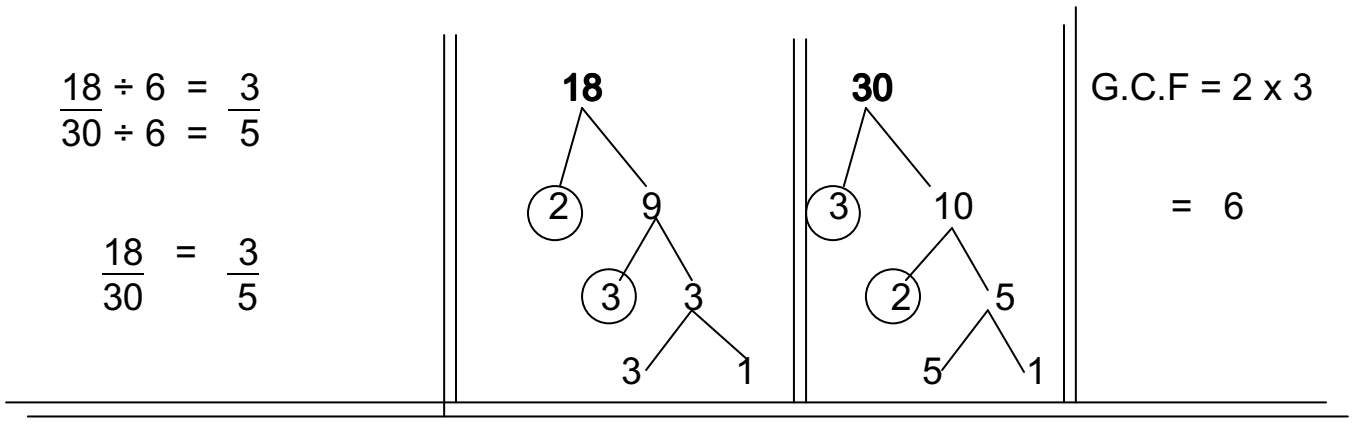
- Prime factorise both the numerator and denominator using prime numbers.
- Identify Common Factors; multiply them to get the G.C.F
- Divide both numerator and denominator using the G.C.F.

Examples

1. Reduce $\frac{\mathbf{18}}{\mathbf{30}}$ to its lowest term.

$\frac{18}{30} \div 6 = \frac{3}{5}$

$\frac{18}{30} = \frac{3}{5}$



2. Express $\frac{16}{20}$ to its simplest form.

$\frac{16}{20} \div 4 = \frac{4}{5}$

$\frac{16}{20} = \frac{4}{5}$

(2)	16	20
(2)	8	10
	4	5

G.C.F = 2 x 2

= 4

3. Write $\frac{10}{15}$ in its lowest term.

$\frac{10}{15} \div 5 = \frac{2}{3}$

$\frac{10}{15} = \frac{2}{3}$

2	10	15
(5)	5	15
	1	3

G.C.F = 5

Assignment 7

Using the G.C.F, reduce the following fractions to their simplest forms.

a) $\frac{6}{15}$

b) $\frac{8}{20}$

c) $\frac{32}{40}$

d) $\frac{18}{30}$

e) $\frac{4}{12}$

f) $\frac{10}{4}$

Arranging Fractions in Ascending and Descending Order

Ascending Order – Is the arranging of numbers from the smallest to the biggest.

Descending order – Is the arranging of numbers from the biggest to the smallest.

Examples

1. Arrange $\frac{1}{2}$, $\frac{3}{4}$ and $\frac{2}{3}$ in ascending order.

L.C.M of 2, 4 and 3

M2 = {2, 4, 6, 8, 10, **12**, 14, …}

M3 = {3, 6, 9, **12**, 15, 18, …..}

M4 = {4, 8,**12**, 16, 20, ….. }

LCM of = **12**.

$\frac{1}{\cancel{2}_1} \times \cancel{12}^{6} = 1 \times 6 = 6$ (1st)

$\frac{3}{\cancel{4}_1} \times \cancel{12}^{3} = 3 \times 3 = 9$ (3rd)

$\frac{2}{\cancel{3}_1} \times \cancel{12}^{4} = 2 \times 4 = 8$ (2nd)

Therefore, the ascending order of $\frac{1}{2}, \frac{3}{4}$ and $\frac{2}{3}$ is **$\frac{1}{2}, \frac{2}{3}$ and $\frac{3}{4}$**

2. Arrange $\frac{1}{10}$, $\frac{2}{5}$ and $\frac{3}{4}$ in descending order.

L.C.M of 10, 5 and 4

$M_{10} = \{10, \mathbf{20}, 30, 40, \ldots\}$

$M_5 = \{5, 10, 15, \mathbf{20}, 25, \ldots\}$

$M_4 = \{4, 8, 12, 16, \mathbf{20}, 24\ldots\}$

LCM of = **20**.

$\frac{1}{\cancel{10}_1} \times \cancel{20}^{2} = 1 \times 2 = 2$ (3^{rd})

$\frac{2}{\cancel{5}_1} \times \cancel{20}^{4} = 2 \times 4 = 8$ (2^{nd})

$\frac{3}{\cancel{4}_1} \times \cancel{20}^{5} = 3 \times 5 = 15$ (1^{st})

Therefore, the descending order of $\frac{1}{10}, \frac{2}{5}$ and $\frac{3}{4}$ is **$\frac{3}{4}, \frac{2}{5}$ and $\frac{1}{10}$**

Assignment 8

1. Arrange $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$ in ascending order.

2. Arrange $\frac{5}{6}$, $\frac{5}{8}$ and $\frac{5}{12}$ in descending order.

3. Arrange $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{2}$ in ascending order.

4. Arrange $\frac{1}{4}$, $\frac{2}{5}$ and $\frac{5}{10}$ in descending order.

5. Arrange $\frac{1}{3}$, $\frac{3}{4}$ and $\frac{5}{6}$ in descending order.

6. Arrange $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$ and $\frac{1}{6}$ in ascending order.

Comparing Fractions using > ,< or =

Names of signs used

> Greater than

< Less than

= Equal to

Examples

Use **>**, **<** or **=** to compare the following

a) $\frac{2}{5}$ ……. $\frac{3}{4}$

$\frac{2}{5}$ …**<**…. $\frac{3}{4}$

(**8**) (**15**)

L.C.M of 5 and 4

{M5 = 5, 10, 15, **20** ……}

{M4 = 4, 8, 12, 16, **20** …..}

L.C.M = **20**

$\frac{2}{1\,\cancel{5}} \times \frac{\cancel{20}^{4}}{} = 2 \times 4$

$= 8$

$\frac{3}{1\,\cancel{4}} \times \frac{\cancel{20}^{5}}{} = 3 \times 5$

$= 15$

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b) $\frac{2}{3}$ ……. $\frac{8}{12}$

$\frac{2}{3}$ …**=**…. $\frac{8}{12}$

(**8**) (**8**)

L.C.M of 3 and 12

{M3 = 3, 6, 9, **12,** 15 …}

{M12 = **12**, 24, …..}

L.C.M = 1**2**

$\frac{2}{1\,\cancel{3}} \times \frac{\cancel{12}^{4}}{} = 2 \times 4$

$= 8$

$\frac{8}{1\,\cancel{12}} \times \frac{\cancel{12}^{1}}{} = 8 \times 1$

$= 8$

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c) $\frac{2}{4}$ ……. $\frac{2}{8}$ $\frac{2}{4}$ …**>**…. $\frac{2}{8}$ (**4**) (**2**)	L.C.M of 4 and 8 {M4 = 4, **8**, 12, 16, ……} {M8 = **8**, 16 …..} L.C.M = **8**	$\frac{2}{1\,\cancel{4}} \times \frac{\overset{2}{\cancel{8}}}{} = 2 \times 2 = 4$ $\frac{2}{1\,\cancel{8}} \times \frac{\overset{1}{\cancel{8}}}{} = 2 \times 1 = 2$

Assignment 9

1. Which fraction is greater $\frac{2}{4}$ or $\frac{2}{3}$?

2. Of the two fractions, $\frac{3}{4}$ and $\frac{5}{6}$ which is smaller?

3. Use **>**, **<** or **=** to compare the following pairs of fractions.

(a) $\frac{3}{5}$ ……. $\frac{4}{7}$

(b) $\frac{2}{3}$ ……. $\frac{1}{4}$

(c) $\frac{2}{5}$ ……. $\frac{8}{20}$

(d) $\frac{2}{7}$ ……. $\frac{3}{4}$

(e) $\frac{4}{6}$ ……. $\frac{6}{10}$

(f) $\frac{3}{6}$ ……. $\frac{3}{9}$

Addition of Fractions with different denominators using the L.C.M

Examples

1. Add $\frac{1}{3} + \frac{2}{5}$

$\frac{1}{3} + \frac{2}{5} = \frac{5+6}{15}$

$= \frac{11}{15}$

L.C.M of 3 and 5

M3 = {3, 6, 9, 12, (15)}

M5 = {5, 10, (15), 20}

L.C.M = 15

$\frac{1}{1\,\cancel{3}} \times \frac{5}{\cancel{15}} = 1 \times 5$

$= 5$

$\frac{2}{1\,\cancel{5}} \times \frac{3}{\cancel{15}} = 2 \times 3$

$= 6$

2. Find the sum of;

$\frac{2}{5} + \frac{1}{4}$

$\frac{2}{5} + \frac{1}{4} = \frac{8 + 5}{20}$

$= \frac{13}{20}$

L.C.M of 5 and 4

$M_5 = \{5, 10, 15, \mathbf{20}\}$

$\{M_4 = 4, 8, 12, 16, \mathbf{20}\}$

L.C.M = **20**

$\frac{2}{\cancel{5}_1} \times \frac{\cancel{20}^{4}}{} = 2 \times 4$

$= 8$

$\frac{1}{\cancel{4}_1} \times \frac{\cancel{20}^{5}}{} = 1 \times 5$

$= 5$

3. John dug $\frac{1}{6}$ of the garden and Mary dug $\frac{2}{3}$ of the garden. What fraction did they dig altogether?

$\frac{1}{6} + \frac{2}{3}$

$\frac{1}{6} + \frac{2}{3} = \frac{1 + 4}{6}$

$= \frac{5}{6}$

L.C.M of 3 and 4

$M_6 = \{6, 12, 18 \ldots\}$

$M_3 = \{3, 6, 9, 12\}$

L.C.M = 6

They dug $\frac{5}{6}$ of the garden

$\frac{1}{\cancel{6}_1} \times \frac{\cancel{6}^{1}}{} = 1 \times 1$

$= 1$

$\frac{2}{\cancel{3}_1} \times \frac{\cancel{6}^{2}}{} = 2 \times 2$

$= 4$

Assignment 10

1. Work out the following

(a) $\frac{1}{2} + \frac{2}{5}$

(b) $\frac{2}{9} + \frac{1}{6}$

(c) $\frac{2}{3} + \frac{3}{4}$

(d) $\frac{4}{6} + \frac{1}{2} + \frac{1}{3}$

A man sold $\frac{1}{4}$ of the bag of maize flour on Monday and $\frac{2}{5}$ of it on Tuesday. What fraction of the maize flour was sold altogether?

Mukisa ate $\frac{1}{6}$ of the cake. He ate another $\frac{3}{10}$ of the same cake the next day. What fraction of the cake did he eat in the 2 days?

Addition of Fractions with different denominators using Equivalent fractions.

Examples

1. Add $\frac{2}{3} + \frac{1}{4}$

$\frac{2}{3} + \frac{1}{4} = \frac{8}{12} + \frac{3}{12}$

$= \frac{8 + 3}{12}$

$= \frac{11}{12}$

$\frac{2}{3} = \frac{2}{3}, \frac{4}{6}, \frac{6}{9}, \boxed{\frac{8}{12}}$.....

$\frac{1}{4} = \frac{1}{4}, \frac{2}{8}, \boxed{\frac{3}{12}}, \frac{4}{16}$ .....

L.C.D = 12

2. Find the sum of $\frac{2}{9}$ and $\frac{1}{6}$

$\frac{2}{9} + \frac{1}{6} = \frac{4}{18} + \frac{3}{18}$

$= \frac{4 + 3}{18}$

$= \frac{7}{18}$

$\frac{2}{9} = \frac{2}{9}, \boxed{\frac{4}{18}}$,

$\frac{1}{6} = \frac{1}{6}, \frac{2}{12}, \boxed{\frac{3}{18}}$

L.C.D = 18

3. At Kyengera Primary School $\frac{2}{3}$ of the pupils are girls and $\frac{1}{9}$ are boys.

What is the total fraction of the pupils in the school?

Solution

$$\frac{2}{3} + \frac{1}{9} = \frac{6}{9} + \frac{1}{9}$$

$$= \frac{6 + 1}{9}$$

$$= \frac{7}{9}$$

$\frac{2}{3} = \frac{2}{3}, \frac{4}{6}, \frac{6}{9}$

$\frac{1}{9} = \boxed{\frac{1}{9}}, \frac{2}{18}, \ldots$

L.C.D = 9

The total fraction of pupils in the school is $\frac{7}{9}$

Assignment 11

1. Work out the following

   a) $\frac{2}{10} + \frac{2}{5}$

b) $\frac{1}{3} + \frac{1}{5}$

c) $\frac{2}{7} + \frac{1}{14}$

d) $\frac{2}{5} + \frac{1}{6}$

2. A pupil spent $\frac{1}{3}$ an hour writing examples and $\frac{3}{6}$ of an hour doing the exercise.

   What is fraction of the time did he use altogether?

3. Daddy ate $\frac{2}{6}$ of the cake and mummy ate $\frac{2}{4}$.

What is fraction did they eat altogether?

Addition of Mixed Fractions

Guidelines

- Change mixed fractions to improper fractions
- Change the answer back to mixed fractions

Examples

4. Add $2\frac{1}{4} + 1\frac{2}{5}$

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

$= \frac{(4 \times 2) + 1}{4} + \frac{(5 \times 1) + 2}{5}$

$= \frac{8 + 1}{4} + \frac{5 + 2}{5}$

$= \frac{9}{4} + \frac{7}{5}$

$\frac{9}{4} + \frac{7}{5} = \frac{45 + 28}{20}$

$= \frac{73}{20}$,

$= 3\frac{13}{20}$

M4 = {4, 8, 12, 16, 20, ….}
M5 = {5, 10, 15, 20, …..}

L.C.M = 20

$1\frac{\cancel{4}}{4} \times \frac{5}{\cancel{20}} = 45$

$1\frac{\cancel{5}}{5} \times \frac{4}{\cancel{20}} = 28$

$\frac{73}{20} = 20\overline{)73}$ (3 d, 13 n)

$\begin{array}{r} 45 \\ +\ 28 \\ \hline \mathbf{73} \end{array}$

M20 = 20, 40, 60 80

2. Pauline used $3\frac{1}{2}$ onions to prepare meat, $2\frac{1}{4}$ onions for rice and $4\frac{1}{2}$ onions to prepare chicken. Find the total number of onions used altogether.

$$3\frac{1}{2} + 2\frac{1}{4} + 4\frac{1}{2}$$

$$\frac{(2 \times 3) + 1}{2} + \frac{(4 \times 2) + 1}{4} + \frac{(2 \times 4) + 1}{2}$$

$$= \frac{6 + 1}{2} + \frac{8 + 1}{4} + \frac{8 + 1}{2}$$

$$= \frac{7}{2} + \frac{9}{4} + \frac{9}{2}$$

$$\frac{7}{2} + \frac{9}{4} + \frac{9}{2}$$

$$= \frac{14 + 9 + 18}{4}$$

$$\frac{41}{4}$$

$$= 10\frac{1}{4}$$

M2 = 2, 4, 6, 8, …..
M4 = 4, 8, 12, …….

L.C.M = 4

$$\frac{7}{2} \times 4 = 14$$

$$\frac{9}{4} \times 4 = 9$$

$$\frac{9}{2} \times 4 = 18$$

$$\frac{41}{4} = 4 \overline{)41}$$

d 10w

41
1
- 0
1n

Pauline used $10\frac{1}{4}$ onions altogether

Assignment 12

1. Work out the following

a) $4\frac{1}{8} + 3\frac{1}{2}$

b) $2\frac{1}{2} + 1\frac{1}{6} + 3\frac{2}{9}$

c) $2\frac{1}{3} + 3\frac{1}{4}$

d) $4\frac{1}{4} + 2\frac{1}{6} + 3\frac{1}{2}$

3. A mother gave sugarcanes to her children. The daughter got $1\frac{1}{2}$ and the son got $2\frac{1}{4}$. How many sugarcanes did they get altogether?

4. In a library, $4\frac{1}{3}$ of the books are Mathematics, $9\frac{1}{6}$ are English books and $\frac{1}{3}$ are Science books. How many books are in the library altogether?

END

SET III

P5 HOLIDAY WORK SCIENCE TERM 2 – 2020

The Digestive System.

The digestive system of human beings is made up of tissues and organs which take part in the digestion of food.

The digestive system is a group of many organs which work together to break food into smaller soluble particles which can be absorbed into the blood stream. It is a system that deals with the breaking of food and its use in the body.

The long muscular tube that runs through the body from the mouth to the anus is a part of the digestive system called the *Alimentary canal*.

Digestion

This is a process by which food is broken down into soluble particles which can be absorbed into the blood stream.

The process by which food is taken into the body is called *ingestion*.

Digestion BEGINS IN THE MOUTH and ends in the ileum.

Types of digestion

a) Mechanical digestion

b) Chemical digestion

Mechanical digestion

This is a type of digestion where food is broken down into smaller particles by the teeth **(physical means).**

Mechanical digestion is called a physical change because the physical nature of food remains unchanged.

It takes place in the mouth in human beings.

Chemical digestion:

This is a type of digestion where food is broken down into soluble substances by the help of enzymes (chemical substances).

Chemical digestion starts in the mouth and ends in the ileum.

Exercise 1

1. What is digestion?

……

……

2. State the difference between digestive system and the alimentary canal.

……

……

……

……

3. Where in the alimentary canal does digestion of food start from?

……

……

4. Name two types of digestion.

   (i) …… (ii) …….

5. What type of digestion involves the action of enzymes?

   ……

ENZYMES

These are chemical substances that speed up digestion of food (chemical digestion). OR

These are catalysts which increase the rate of digestion.

Characteristic of enzymes

(i) They are specific i.e. each enzymes acts upon a particular class of food.

(ii) They are destroyed by heating because they are protein in nature.

(iii) They act in particular conditions ie some prefer acidic others alkaline conditions.

Conditions under which enzymes work.

a) Alkaline conditions (PH).

b) Acidic conditions (PH).

N.B: Enzymes in the mouth, duodenum and the ileum work under alkaline conditions.

2. Enzymes in the stomach work under acidic conditions.

Roles of enzymes.

- To speed up (increase) the rate of chemical digestion.

How does food move in the alimentary canal?

Food moves along the alimentary canal through *peristalsis*.

Peristalsis is the wavelike movement of food through the alimentary canal.

Parts of the alimentary canal (tube)

- Mouth
- Gullet (oesophagus)
- Stomach
- Duodenum
- Ileum
- Colon
- Rectum
- Anus

The structure of a human digestive system consists of the following parts namely:

- Mouth
- Gullet (oesophagus)
- Stomach
- Spleen
- Pancreas
- Gall bladder
- Bile duct
- Duodenum
- Small intestine
- Large intestine (colon)
- Appendix
- Rectum
- liver
- Anus

Exercise 2

1. What are enzymes?

……

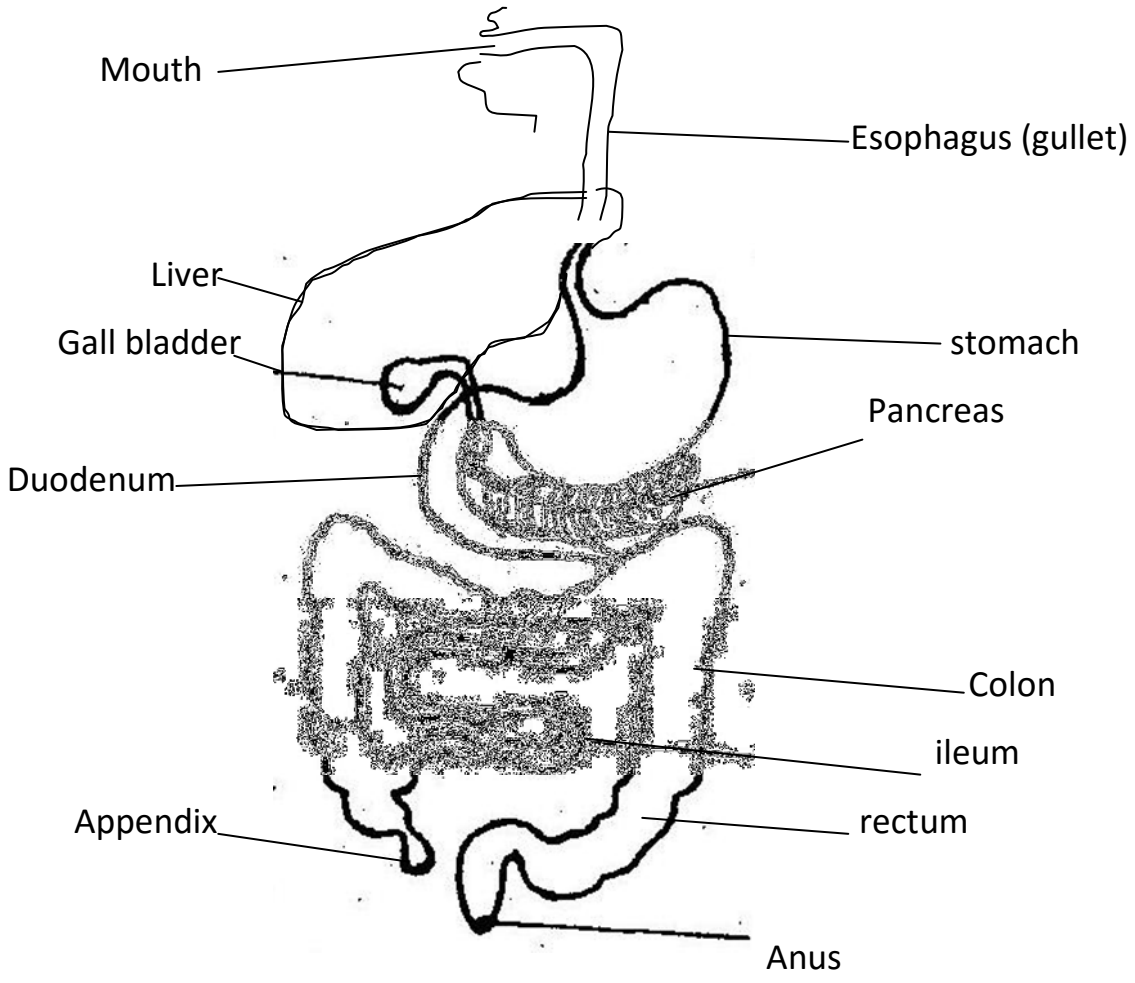
……

2. Name the chemical compound that speeds up the digestion of food.

……

THE DIGESTIVE SYSTEM

THE STRUCTURE OF A HUMAN DIGESTIVE SYSTEM AND FUNCTIONS OF THE DIFFERENT PARTS.



Functions of different parts of the digestive system

1. **Mouth**

- It is where digestion begins.

<u>Components in the mouth</u>

a) The teeth

Break food into smaller particles hence increasing the surface area for the action of enzyme

b) The salivary glands

Produce saliva.

c) Saliva

- It is a digestive juice produced by the salivary glands in the mouth.
- It has an enzyme called salivary amylase or ptyalin.
- Salivary amylase or ptyalin breaks down starch into maltose.
- It also has mucus which lubricates the food.
- Saliva softens the food.

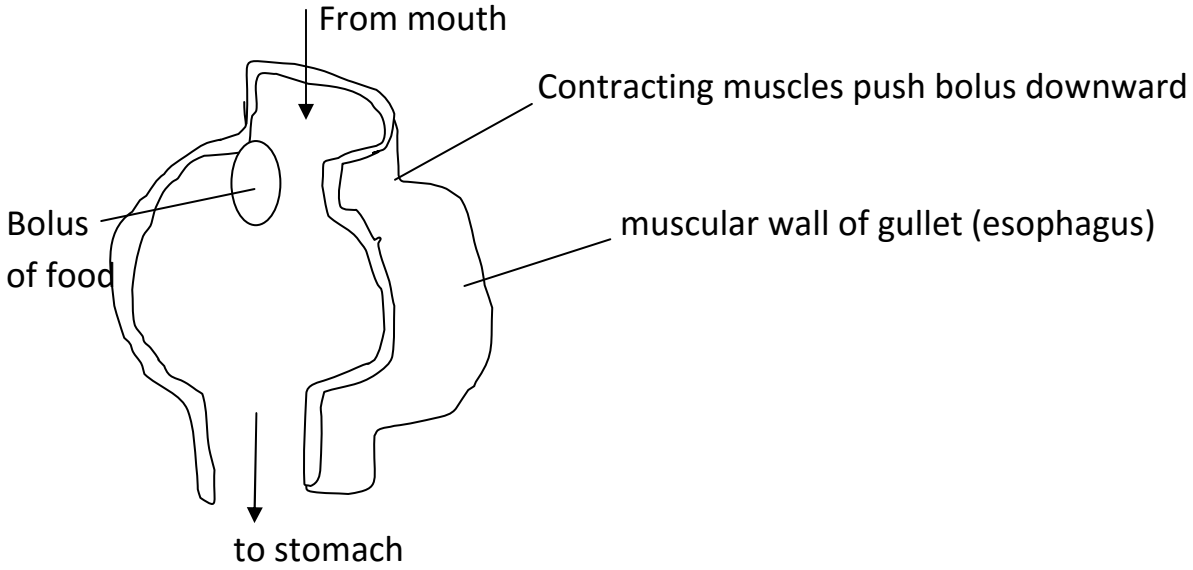
d) The tongue.

- It rolls food into a bolus.
- It is used for tasting.
- It pushes the food into the gullet.

e) Gullet (esophagus)

- It leads food from the mouth to the stomach.
- Food passes through the gullet by the process of peristalsis.

Illustration of peristalsis



2. **The epiglottis:**

   Prevent food from entering the windpipe (trachea).

3. **The soft palate:**

   Prevents food from entering the nasal cavity

Exercise 3

1. How are the teeth useful during the digestion of food in the body?

……..

2. State any two ways saliva is useful during digestion of food.

   (i) ……

   (ii) ……

3. Name the enzymes found in the mouth.

……

4. State the role of the salivary amylase secreted by the salivary glands.

……

5. Which class of food is first digested in the mouth?

……

FUNCTIONS OF THE PARTS OF THE DIGESTIVE SYSTEM

4. **Stomach**
   (i) Temporary store of food.
   (ii) Produces gastric juice.
   (iii) Produces hydrochloric acid
   (iv) Absorbs alcohol, common salt.
5. **The liver**

   Produces bile. Bile juice contains no emzymes.
6. **Gall bladder**
   - Stores bile.

   Note: Bile has salts that emulsify the fats or break down fats into tiny droplets for better and easy digestion.
7. **Bile duct**

   Conducts bile into the duodenum.
8. **The pyloric sphincter:**

   It is a strong muscle which holds food into the stomach and lets it into the duodenum at intervals.
9. **Pancreas**
   - Produces pancreatic juice.
10. **The duodenum:**
    - It is the first section of the small intestine.
    - It receives bile and pancreatic juice.

11.The ileum:

- It is the second section of the small intestine.
- Final digestion of food takes place in the ileum.
- Absorption of digested food takes place in the ileum.

12.Large intestine:

- The colon, rectum and anus form the large intestines.
- No digestion of food takes place.

13.Colon:

Absorption of water from undigested food takes place in the colon.

14.Rectum:

- It keeps undigested waste material before they are passed out.
- Temporary store for undigested food.

15.Anus:

- It passes out undigested food as faeces.

Components of faeces.

- Water - bacteria - dead cells

Exercise 4

1. In what form is food ready for swallowing?

……..

2. What name is given to the process by which food moves through the alimentary canal? …….

3. Name the acid produced by the walls of the stomach.

……

4. Name the juice produced by the walls of the stomach.

……

5. Name the juice produced by the pancreas.

……

6. Give at least two substances which are absorbed from the stomach.

   (i) ……. (ii) …….

DIGESTION IN THE MOUTH AND STOMACH

Digestion of food in the mouth

Food is broken down into smaller particles by the teeth and mixed with saliva.

- Saliva softens or lubricates food for easy swallowing.
- Chewed food is rolled into a bolus by the tongue.
- The small ball of food is called bolus.
- Digestion of cooked starch by enzyme called salivary amylase or ptyalin starts from the mouth.
- Cooked starch is then changed to maltose by salivary amylase or ptyalin.
- The condition in the mouth is alkaline.

Note: Chemical digestion of carbohydrates begins in the mouth.

Digestion in the stomach

- The stomach is a muscular bag where food is temporarily stored.
- The movement of muscles of the stomach churn the food into a semi-liquid substance called chyme.
- The lower end of the stomach is kept closed by a muscle called pyloric sphincter and upper end by a muscle called cardiac sphincter.

- Absorption of alcohol, simple sugars, common salts and medicine takes place in the stomach.

- Chemical digestion of proteins begins in the stomach.
- The food in the stomach which has been mixed with digestive juices is called chyme.

- The stomach walls also secret (produce gastric juice and hydrochloric acid.
- Gastric juice contains two enzymes namely:

a) Pepsin (b) renin

- Pepsin acts on proteins and breaks them down into pepticles.
- Renin acts upon the milk proteins. Renin curdles or clots milk proteins. Renin is found in the digestive system of babies.

- When digestion in the stomach is complete the pyloric sphincter relaxes at intervals to let chyme into the first part of the small intestine called duodenum.

- **Note:** Digestion of starch (carbohydrates) does not take place in the stomach because the acidic conditions in the stomach stop the action of salivary amylase.

Functions of hydrochloric acid

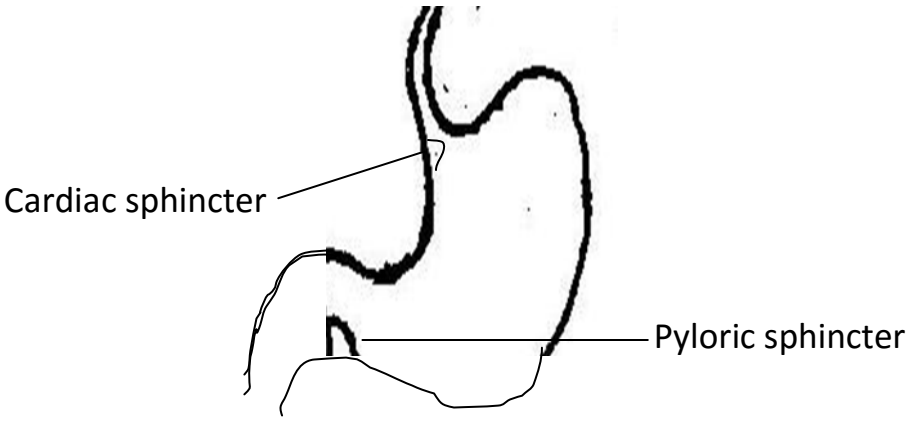
(i) Kills germs which escape with the food we eat to the stomach.

(ii) Provides suitable acidic conditions (acidic PH) for pepsin to digest proteins.

(iii) Activates pepsinogen to pepsin.

(iv) Stops the action of salivary amylase.

Simple diagram of the stomach



Exercise 5

1. Name the digestive juice produced by the stomach walls.

   ……..

2. Mention two enzymes contained in the digestive juice mentioned above.

   (i) …….. (ii) ……..

3. Name the enzyme that helps to clot proteins in babies.

   ……..

4. State the role of hydrochloric acid during digestion of food.

   ……..

5. Where does digestion of proteins start in the digestive system?

DIGESTION IN THE DUODENUM.

- The duodenum contains two glands.
- The liver and pancreas.

The Liver.

- It produces bile juice.
- Bile juice is stored in the gall bladder (green fluid).
- Bile juice is then directed to the duodenum by the bile duct.

- Bile juice contains bile salts that emulsify fats or break down fats for easy digestion.

- The liver detoxifies food by removing poisonous substances from the food.

Note: Bile juice contains no enzyme.

The pancreas:

- It produces pancreatic juice.
- Pancreatic juice is an alkaline juice which is poured into the duodenum by the pancreas through the pancreatic duct.

- Pancreatic juice contains three enzymes namely:

(a) Lipase (b) trypsin (c) pancreatic amylase

- Pancreatic amylase breaks down starch (carbodydrates) to matose.
- Lipase breaks down fats to fatty acids and glycerol.
- Trypsin breaks down proteins to peptides and then peptides to amino acids.

Note: 1. No absorption of food in the body takes place in the duodenum.

2. Chemical digestion of fats begins in the duodenum.

DIGESTION IN THE ILEUM.

The ileum secrets an intestinal juice called succus enteriscus which contains enzymes that help to complete digestion.

Enzymes contained in succus entericus (intestinal juice).

⟶ Maltase ⟶ sucrose ⟶ peptidase (erepsin)
⟶ Lactase ⟶ lipase

a) Maltase - breaks down maltose to glucose.
b) Lactose - breaks down lactose to glucose.
c) Sucrase - breaks down sucrose to glucose.
d) Lipase - breaks down fats (lipids) to fatty acids and glycerol.
e) Peptidase (erepsin) - breaks down peptides to amino acids.

The ileum also produces mucus which lubricates the food passage and prevents enzymes from digesting the walls of the ileum.

- Final digestion of food takes place in the ileum.
- Absorption of digested food takes place.

Class of food	**End product of digestion**
1. Proteins	Amino acids
2. Carbohydrates	Glucose
3. Fats and oils (lipids)	Fatty acids and glycerol

Exercise 6

1. Where does digestion of fats start in the digestive system?

   ……

2. Name the digestive juice produced by the following organs during digestion of food.

   (i) Pancreas …… (iii) liver ……

   (ii) intestinal walls ……..

3. Name three enzymes contained in the pancreatic juice.

   (i) …… (iii) ……

   (ii) ……

4. State the end-products for each of the following:

   (a) Proteins - …….

   (b) fats - …….

   (c) carbohydrates …….

5. How is the liver important during the digestion of food in the human body?

   ……

6. What name is given to the duct which takes juice produced in the liver to the duodenum? ……..

ABSORPTION IN THE ILEUM

Absorption is a process by which digested food is taken into the blood stream.

Absorption of digested food in the ileum takes place with the help of finger –like structures called villi.

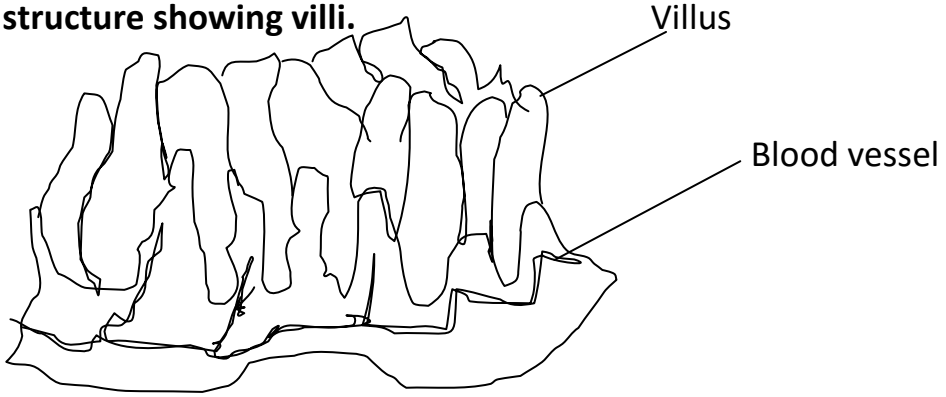
Absorption of digested food in the ileum takes place by diffusion.

Note: Diffusion is the movement of molecules from a region of high concentration to a region of low concentration.

Adaptations of the ileum to absorbing digested food.

1. It is long and coiled increasing a surface area for food absorption.
2. It has finger-like projections called villi which increases the surface area for absorption of digested food.
3. It has thin walls called epithelium for easy diffusion of digested food.
4. It has a dense network of blood capillaries which allow transportation of absorbed food all over the body.

A structure showing villi.



Note: The hepatic portal vein takes blood rich in digested food from the ileum to the liver.

Uses of digested food to our bodies.

a) The maltose, glucose (from carbohydrates) fatty acids and glycerol (from fats). Provide energy to the body.
b) Amino acids (from proteins) help in the proper growth and repair of the worn out body cells.

SUMMARY TABLE OF DIGESTIVE PROCESSES

	Organ (part of the digestive system)	**Gland**	**Digestive juice**	**Enzymes**	**Food changes**
1.	Mouth	Salivary glands	Saliva	Ptyalin or salivary amylase	Starch to maltose
2.	Stomach	Gastric glands	Gastric juice	Pepsin	Proteins to peptides Clots milk proteins in
				Rennin	babies
3.	Duodenum	Liver	Bile	No enzyme	Emulsifies fats Proteins to peptides
		Pancreas	Pancreatic juice	Trypsin	and peptides to amino acids Starch to maltose Fats to fatty acids and glycerol.
				Amylase	
				Lipase	
4.	Ileum		Intestinal juice or succuss entericus	Lactase	Lactose to glucose
					Maltose to glucose
				Maltase Sucrase to glucose	Fats to fatty acids and glycerol Peptides to amino
				Lipase Peptidase	acids
5.	Colon				Absorption of water from undigested food
6.	Rectum				Storage of faeces.

Exercise 6

1. Explain the term absorption of food.

   ……

2. Where does absorption of digested food take place?

   ……..

3. How is the ileum adapted to food absorption?

   ……..

4. Where does absorption of the following foods take place?

   a) alcohol? ……..

   (b) water? ……..

   c) digested food? ……..

5. Where in the alimentary canal does digestion of food end?

   ……..

5. What name is given to the finger-like structures of projections in the ileum?

   ……

7. What name is given to the blood vessel which takes absorbed food from the ileum to the liver? ……

DISEASE OF THE DIGESTIVE SYSTEM.

Diseases of the digestive system.

1. Typhoid
2. Peptic ulcers
3. Cholera
4. Dysentery
5. appendicitis
6. Diarrhoea

Typhoid

It is caused by bacteria called salmonella typhi which causes inflammation of the intestine and easily leads to death.

Dysentery

It is caused by a bacterium or Amoeba got by eating uncooked food or dirty food or water.
The victim visits the toilet very frequently passing out watery stool with some blood stains.

Appendicitis

This is the inflammation of the appendix. This may be due to stones or other indigestible solids that get trapped in the appendix.

Peptic ulcers

These are sores in the stomach wall caused by too much acid.

- The victim experiences a chronic sharp pain in the stomach and frequent heat burn.

Digestive disorders (Are disturbances to the alimentary cnal that make it fail to function properly.

a) Constipation

This is a condition where by a person finds it difficult to pass out faeces. The faeces are very hard and dry and do not come out easily.

Causes

- Lack of roughages in one's diet.
- Having irregular meals.
- Drinking inadequate water.
- Inadequate body exercises.

How to prevent constipation

(i) By taking enough water after meals.

(ii) By eating fruits and vegetables.

Sources of roughages

a) Pineapples
b) Mangoes
c) green vegetables
d) cereals

b. Indigestion

This is a condition when food is not properly digested. The victim feels discomfort in the stomach, gets a heart burn (burning in the chest) and tiredness (fatigue), belching too often, bloating, the stomach becomes full of gas.

Causes

- Improper chewing of food.
- Eating food hurriedly.
- Too much drinking of alcohol.

Prevention of indigestion

1. Chew food properly before swallowing it.
2. Drinking enough water.
3. Avoid eating hurriedly.

4. Exercise 7

1. Why is it important for a young child to properly chew food before swallowing?
2. Write down any two diseases that affect the digestive system.
3. State any two disorders of the digestive system.
4. Mention the process that takes place in the following parts of the alimentary canal.

   a) Stomach b) small intestines c) colon
5. Why is it bad to eat with unwashed hands?
6. Why should we always warm leftover food before eating it?

7. Why is it dangerous to talk while eating food?

DISORDERS AND WAYS OF IMPROVING THE WORKING CONDITIONS OF THE DIGESTIVE SYSTEM

Ways of Improving the Working Conditions of the Digestive System.

Intestinal obstruction

This is a disorder where the small intestines become constricted or twisted or folded and become narrow to allow proper passage of food and water.

Vomiting

This is the expulsion of undigested food through the mouth.

- It disturbs the digestive system and forces the cardiac sphincter to open and the food in the stomach to be ejected through the mouth.
- This is a sign of many diseases.

Causes of vomiting

1. Unpleasant smells.
2. Obstruction of the gut for a long time.
3. Eating of spoilt food.
4. Over eating
5. Eating in a hurry.
6. Unfriendly shaking of the body e.g when travelling.

How to improve on the working condition of digestive system.

a) Eating food regularly.
b) Eating plenty of fruits and vegetables.
c) Having regular body exercises.
d) Having a balanced diet.

e) Drinking safe clean water.

f) Avoid eating while talking.

g) Avoid drinking too much alcohol.

h) Avoid eating stale or rotten food.

i) Washing hands with soap after visiting the toilet.

j) Washing of hands before eating food.

Exercise 8

1. Give three adaptations of the ileum to its functions.

   i) ……

   ii) ……

   iii) ……...

2. Give four ways of maintaining the digestive system in good state.

   (i) ……

   (ii) ……..

   (iii) ……..

   (iv) ……

3. Write down at least four good eating habits.

   (i) ……

   (ii) ……..

   (iii) ……..

   (iv) ……

4. State at least four dangers of bad eating habits.

(i) ……

(ii) ……

(iii) ……

(iv) ……

5. How does improper chewing of food affect the digestive system of people?

   ……

   ……

6. Name any one water borne disease that attacks the digestive system.

   ……

7. Describe the following terms as applied to digestion.

   a) Ingestion - ……

   b) Digestion - ……

   c) Absorption - ……

   d) Assimilation - ……

   e) Egestion - ……

   f) Indigestion - ……

END

SET III

P.5 SOCIAL STUDIES REVISION WORK FOR TERM II 2020

Name: ..... Stream .....

People of Pre-colonial Uganda

The Stone Age Period

Archaeology: This is the digging out and studying of the remains of early man.

Fossils: These are the remains of early man; they include tools (weapons)

Archaeologists: These are the people who dig out and study the remains of early man.

Examples of such people include;

Dr. Lous S.B Leakey who founded the oldest human skull in East Africa at Olduvai Gorge in Tanzania

Stages of the Stone Age Period

a) Early/Old Stone Age period
b) Middle Stone Age Period
c) Late/New Stone Age Period

(a) Early/Old Stone Age Period

- People lived a wildlife.
- Food was obtained by gathering, hunting animals and collecting honey.
- Man ate raw meat.
- Man used simple tools of stones and sticks like bolas, spear heads, clubs of wood, a hand axe.

(b) Middle Stone Age Period

- The most important discovery of early man was fire.
- This marked the end of early Stone Age and the beginning of middle Stone Age period.
- Early man made fire when he rubbed two dry sticks fixed in a hole of a piece of wood through friction, fire resulted.
- Man had a well developed brain
- Early man was able to tame a dog in this period.

(c) New Stone Age period

It is also called Neolithic Stage

The most important discovery in this period was farming.

Farming marked the end of the middle Stone Age and beginning of the New Stone Age.

Farming enabled man to live a settled life.

Man started living in communities and laws were made to maintain order.

The discovery of Iron led to the end of Stone Age and the beginning of the Iron Age.

Stone Age Sites

These are places where early man is believed to have lived.

Examples of Stone Age Sites in Uganda

- Magosi
- Sango bay
- Paraa
- Nsongezi
- Luzira
- Nyero (Rock paintings)

Importance of Stone Age Sites

- They attract tourists who bring income
- They are used for study and research.
- They provide employment

Assignment 1

1. How do we call the study of the remains of early man?

……

2. What are fossils?

……..

3. Name the place in Tanzania where the oldest human skull was discovered.

……

4. Give two ways fire was important to early man.
   (i) ……
   (ii) ……..
5. How did the Middle Stone Age period come to an end?

……

6. Why are Stone Age Sites protected by the government in Uganda?

……

Ethnic Groups

Major Ethnic Groups in Uganda

The original inhabitants of Uganda before the coming of different Ethnic groups were the Bushmen.

An **ethnic group** is a group of people who have the same origin and speak related languages.

A **tribe** is a group of people who have the same origin and speak the same language.

Culture – This is the acceptable behaviour in a given society.

Major Ethnic Groups in Uganda

a) Bantu
b) Nilotics (Luo/River-Lake Nilotes)
c) Nilo-Hamites (Plain and Highland Nilotes)
d) Hamites (Cushites)
e) The Sudanic

Ethnic groups can be identified by:

- Languages
- Clans
- Names
- Customs
- Totems as symbols

The Bushmen occupied Uganda before the coming of ethnic groups.

The Bushmen were displaced by the Bantu

The Bushmen were hunters and gatherers

Assignment 2

1. Define the term an ethnic group.

   ……

   ……

2. Who were the inhabitants of Uganda before the coming of ethnic groups?

   ……

3. Name the first ethnic group to migrate into Uganda.

   ……

4. Which ethnic group entered Uganda through the North-East?

   ……

5. What is a tribe?

   ……

Characteristics of Ethnic Groups

People have the same origin

People speak related languages

People have similar customs (Practices)

People carry out similar economic activities

People have similar political and social institution set ups.

The Bantu

The Bantu are believed to have originated from Cameroon highlands.

This was the first ethnic group to enter Uganda and they are believed to have entered Uganda between 1000 – 1500

They entered Uganda through the West from Democratic Republic of Congo.

The Bantu tribes speak related languages with a common syllable "**ntu**" when they are talking about a person or something.

When the Bantu entered Uganda, they settled in the Interlacustrine region.

The Interlacustrine region was the region between the great lakes of East Africa.

Most Bantu tribes in Uganda today are found in central, Western and Eastern regions of Uganda.

Examples of Bantu tribes

a) Central region – Baganda, Baruli, Bakooki
b) South-Western region - Banyankole, Bakiga, Bahororo
c) Western region - Banyoro, Batooro, Bakonzo, Bama
d) Eastern region - Basoga, Bagishu, Basamia, Bagwere.

The Interlacustrine region

This refers to the region between the great lakes of East Africa i.e L. Victoria, L. Kyoga, L. Albert, L. Tanganyika and L. Edward.

Reasons why the Bantu settled in the interlacustrine region

The area had fertile soils for crop growing.
The area had favourable climate for settlement.
It received reliable rainfall.

Reasons why the Bantu migrated from their homeland/cradle land

To look for fertile land for cultivation (main reason)
Drought in their cradle land
Due to internal conflicts
External conflicts

There was land shortage
Outbreak of epidemic diseases
There was famine

Effects of the Bantu migration and settlement in Uganda

a) Positive effects

They introduced new crops e.g Bananas, millet
They formed kingdoms e.g Buganda, Bunyoro etc
They introduced new languages
They introduced simple iron tools e.g spears, arrows
They introduced pottery

b) Negative effects

They increased population in Uganda
They displaced the Bushmen
They caused wars and land conflicts

Assignment 3

1. Where did the Bantu migrate from?

   .....

2. Through which direction did the Bantu enter Uganda?

   .....

3. Define the term Interlacustrine region.

   .....

   .....

4. Give two reasons why the Bantu settled in the interlacustrine region.

   a) .....

   b) .....

5. In which way did the fertile soils influence the Bantu to settle in Uganda?

   .....

6. Name one Bantu tribe in the Western region of Uganda.

……

The Nilotes

They are divided into three main groups

i) River-Lake Nilotes

ii) Plain Nilotes

iii) Highland Nilotes

The Nilotics

- They are also called River-Lake Nilotes or Luo Speakers
- They are called River-Lake Nilotes because they settled along the Nile Valley.
- The Nilotics originated from Bahr-el-Ghazel in South Sudan and entered Uganda through the North.
- They were led to Uganda by Olum, the father of Gipiir and Labong.
- They first settled at a place known as Pubungu the current Packwach.
- Their main occupation was cattle keeping. (Pastoralism)
- They settled in Uganda between 1400 – 1800 AD
- From Pubungu, the two brothers i.e Gipiir and Labong separated due to the loss of the spear and the bead.
- Gipiir and his group crossed R. Nile and settled in the West Nile. They intermarried with the Lendu and formed Alur tribe.
- The other group under Labong remained which included the Langi and Acholi.
- Another group crossed the Bunyoro and intermarried with the Bachwezi to form the Luo-Babiito. The Luo Babiito were led by Isingoma Rukidi Mpuga.

- Another group moved to Eastern Uganda and formed the Japadhola and others continued to Kenya (the Jaluo)
- Nilotics tribes in Uganda include; Acholi, Japadhola, Alur, Jonam.

Causes of migration of the Nilotics

- They were looking for pasture and water for their animals
- Land shortage due to over population
- Lover for adventure
- Running away from civil wars
- Outbreak of famine in their homeland
- Outbreak of epidemic diseases
- Long drought seasons

Effects/Results of the Nilotics migration

Positive results

- They introduced new crops like millet, sorghum
- It led to intermarriages with other tribes
- It introduced new languages i.e Luo
- They introduced short horned cattle
- They led to the formation of the Luo-Babiito Dynasty
- They introduced new culture e.g the use of pet names like Amooti, Akiiki, Abooki, Adyeri, Atenyi, Abwori etc.

Negative results

- They increased the population where they settled.
- Led to the decline of the Chwezi dynasty or Bunyoro Kitara Empire
- They caused wars and conflicts where they passed.
- They led to displacement of people were they settled.

Assignment 4

1. Name the cradle land for the Nilotics before they entered Uganda.

……

2. How is Pubungu related to the migration and settlement of the Nilotics into Uganda? ……

……

3. Who was the leader of the Luo Babiito Dynasty?

……

4. Why are the river-lake Nilotics called so?

……

5. Give one reason why the Nilotics migrated from their cradle land.

……

The Nile-hamites (Plain Nilotes)

Why did the Nilotes change from cattle keeping to mixed farming?

- Presence of fertile soils for crop growing
- Favourable rainfall for farming
- They settled in areas with reliable rainfall for farming

The Plain Nilotes are also called Nilo Hamites

They are believed to have come from Ethiopia

The plain Nilotes mainly practice cattle keeping or pastoralism.

They entered Uganda through the North East and this is where they settled. (Karamoja region)

Today, they occupy the districts of Soroti, Kumi, Katakwi, Tororo, Pallisa, Kaberamaido, Kotido, Kabong etc.

Tribes under Plain Nilotes

- Karimojong, - Jie, - Iteso - Kuman

The Karimojong normally practice nomadic pastoralism.

a) Nomadic Pastoralism – is the movement of people with their animals from one place to another looking for water and pasture for their animals.
b) Pastoralism - is the traditional way of keeping large number of animals.
c) Cattle rustling or raiding are the conflicts rising among the nomads on cattle ownership.

Reasons for the migration of the Plain Nilotes (Nilo-hamites)

- To look for water and pasture or their animals
- Drought
- Outbreak of diseases in their area
- Famine
- Due to internal and external conflicts

Highland Nilotes

They are called so because they settled in highland areas or mountainous areas.

They are believed to have come from Ethiopia highlands

They practiced both livestock and crop farming

They mainly settled on the slopes of Mt. Elgon and Moroto e.g Sebei, Pokot and Sabiny.

Assignment 5

1. What was the main occupation of the Plain Nilotes?

……

2. Name two tribes that belong to the Highland Nilotes.

   (i) …… (ii) ……

3. Identify one problem faced by the Karimojongs as they do their work.

……

4. Give one reason why the Iteso changed from Pastoralism to cattle keeping.

……

5. Define the term nomadic pastoralism.

……

The Hamites

The name Hamites is believed to have come from Noah's son – Ham in the Bible.

They are believed to have migrated from Ethiopia and followed the rift valley.

The Hamites entered Uganda using the South Western route through Tanzania and Rwanda.

The Hamites are pastoralists.

They include the following tribes in Uganda;

Bahima, Bahinda, Batutsi, Basita

The Hamites form the smallest Ethnic group in Uganda.

Reasons for the migration of the Hamites

- Land shortage
- Looking for water and pasture
- Drought and famine
- Civil wars in their homelands/internal conflicts
- Outbreak of diseases

Effects of their migration

They started crop farming where they settled

They introduced new languages

They introduced new breeds of cattle

It led to intermarriages with other tribes.

The Sudanic People

- They are found in West Nile.
- They were crop farmers and fishermen
- Their origin started in Juba

Sudanic tribes in Uganda include;

- Lugbara - Kakwa - Madi - Lendu - Okebu

Reasons for their migration

Running away from civil wars

Outbreak of famine

Legends and Myths

Legends - are stories which tell people about the past.

A **myth** is a story that is told to explain about the mysteries of the world. Such stories tell how the earth and life began, the origin of death, day and night.

Why are Legends important?

We learn the different origins of other communities

We learn the ways how early people lived

We learn the origin of people and places.

It promotes morals.

Assignment 6

1. Name the direction through which the Hamites entered Uganda.

……

2. Identify the smallest ethnic group in Uganda

……

3. What was the main occupation of the Hamites

……

4. Give two reasons why the Sudanic people migrated from Juba to Uganda.
   i) ……
   ii) ……
5. State one reason why legends are taught in schools today.

……

Migration

Migration is the movement of people from one place to another for settlement.

Forms of migration

a) Internal migration
b) External migration

Immigration is the process of coming to live permanently in a country which is not your own.

An **Immigrant** is a person who comes to live permanently in a country which is not his/hers.

Causes of Immigration

- Shortage of water and pasture for animals
- Political instability
- Civil wars
- Search for better employment
- For investment
- Love for adventure
- Running away from crimes committed.

Advantages of immigration

It creates employment

It increases the government revenue

The natural resources are put into use.

It leads to importation of skilled labour.

Disadvantages of immigration

It leads to shortage of land

It leads to importation of bad culture

It leads to over exploitation of natural resources

Note: Recent immigrants in Uganda include;

Rwandans, Congolese, Sudanese, Kenyans, Indians etc

Emigration

This is the process of leaving one's country to go and live permanently in another country.

An **emigrant** is a person who leaves his/her country to go and live permanently in a country which is not his/hers.

Reasons why people leave Uganda for other countries

- Searching for changes of employment
- For further studies
- For adventure
- To get medical treatment

Problems faced by early migrants

- Poor transport means
- Attacks from hostile tribes
- Shortage of food and water supply
- They were attacked by tropical diseases
- Difficulty in crossing big physical features

Assignment 7

1. State the difference between Immigration and Emigration.

……

2. State one way Ugandans benefit from immigrants today.

……

3. Give two problems faced by early immigrants.
   i) ……
   ii) ……

4. Mention one lesson you learn from the story of Gipiir and Labong.

……

5. Identify one reason why people leave Uganda for other countries.

……

6. Who is an emigrant?

……

Internal migrations

Migrant is a person who moves from one place to another for settlement.

Example of internal migration

a) Rural – urban migration
b) Rural – rural migration
c) Urban – urban migration
d) Urban – rural migration

(a) **Rural – urban migration** is the movement of people from villages to towns for better settlement.

(b) **Rural – rural migration** is the movement of people from one village to another for settlement.

(c) **Urban – urban migration** is the movement of people from one town to another for settlement.

(d) **Urban – rural migration** is the movement of people from towns to villages for settlement.

Reason/causes of internal migration

- Looking for better jobs
- Looking for better social services
- Looking for enough land
- Internal and external conflicts
- Escaping from crimes committed
- High cost of living in some areas

Effects of internal migration

- It leads to land conflicts
- Leads to shortage of labour where people migrate from
- It leads to intermarriages
- It leads to increased population where people settle.

How to control rural – urban migration

- Extending better social services to rural areas
- By setting up small scale industries in villages
- By extending electricity to villages
- By modernizing agriculture to increase jobs
- By giving soft loans to rural farmers to improve agriculture

Assignment 8

1. Define the term migration

……

2. Give two examples of internal migrations
   (i) ……

3. How do we call the extension of electricity to rural areas?

……

4. In which way will the setting up of small scale industries control rural – urban migration?

……

5. Mention one way internal migrations affect Uganda's population today.

……

Effects of Rural-Urban Migration

- It leads to congestion and traffic jam in towns.
- It leads to low food production in villages
- It leads to high crime rate in towns.
- It leads to poor sanitation in towns.

Problems faced by people in towns

- Food shortage
- Land shortage
- High crime rates
- Traffic jam and congestion
- Poor sanitation and accommodation
- Easy spread of epidemic diseases
- High cost of living

Effects of Urban-rural migration

- It leads to shortage of labour in towns
- It leads to shortage of market for manufactured goods
- It leads to land shortage in rural areas

Factors influencing settlement patterns

a) Land

Areas with specious land for settlement attract many people.

Many people migrate from congested areas to areas with sparse population especially the pastoralists.

b) Vegetation

Thick vegetation like equatorial does not favour settlement.

Savana grasslands favour settlement because they can easily be cleared to construct shelters.

c) Climate

Areas which experience favourable climate with reliable rainfall are good for human settlement especially the crop farmers.

Semi-arid areas don't attract famers because they don't receive reliable rainfall.

d) Soil

Areas with fertile soils have more people compared to areas with infertile soils.

Areas of settlement for different groups of people

1. Agriculturalists - Around lakes and rivers, on slops of mountains
2. Pastoralists - In grassland areas
3. Hunters - Around forested areas

Assignment 9

1. State two ways rural-urban migration affects Ugandans.

……

2. Name two factors that affect settlement patterns in Uganda.

……

3. Give one way the government can encourage the people to go back to villages. ……..

……

4. How do pastoralists benefit from the grasslands?

……

5. Mention one economic activity carried out around the forested areas.

……

6. Define the term Land fragmentation.

……

Political Organisation of Ethnic Groups

Political Organisation: This refers to how people govern themselves.

Ways people organized themselves politically during the pre- colonial Uganda.

- Through empires
- Through kingdoms
- Through chiefdoms
- Through clans
- Through village councils

An empire: This is a group of states under one ruler (emperor)

Bunyoro-Kitara Empire

This was the first empire to be formed in Uganda.

It was formed by **Ruhanga** which means "**Creator**"

The founders of Bunyoro-Kitara Empire were the Batembuzi.

The Batembuzi formed a ruling dynasty called the Tembuzi dynasty. It was founded by Ruhanga with his brother Nkya.

Isaza was the last king of the Tembuzi dynasty.

The Batembuzi rule came to an end when King Isaza was locked down in the underground world by King Nyamiyonga.

The Batembuzi were succeeded Bachwezi.

Bachwezi formed the chwezi dynasty led by King Ndahura became their first King.

Ndahura became the first king of the Bachwezi after killing his grandfather Bukuku.

The last king of the Bachwezi was king Wamala.

The Chwezi dynasty was succeeded by the Luo-Babiito dynasty led by Isingoma Rukidi Mpuga who was a twin brother to Kato Kimera.

Contributions of the Chwezi (Bachwezi) to Uganda

a) Social contributions

- They introduced new games e.g local chess (omweso), wrestling etc.
- They introduced the building of grass thatched huts
- They introduced the idea of digging ditches to provide water for animals

b) Economic contributions

- They introduced long horned cattle
- They introduced iron smelting
- They started salt mining at Lake Katwe
- They introduced coffee growing
- They built Bigobyaamugenyi which attracts tourists.
- They introduced pottery

c) Political contributions

- They introduced a centralized system of government
- They introduced royal regalia
- They introduced the art of building reed palaces.

Assignment 10

1. Name the earliest kingdom to be formed in Uganda.

   .....

2. Who were the founders of Bunyoro-Kitara Empire?

   .....

3. How did the Tembuzi rule come to an end?

   .....

4. Which ruling dynasty succeeded the Tebumbzi?

   .....

5. State two economic contributions of the Chwezi to the development of Uganda.

   i) .....

   ii) .....

SET III

P.5 ENGLISH REVISION WORK FOR TERM II 2020

Name: ..... Stream .....

PRINT MEDIA

Vocabulary practice

cartoon article puzzle journalist front page news
story editor media newspaper backpage

Examples of sentences

1. The news spread over the social media.
2. She spent all her time filling the puzzle in The New Vision newspaper.
3. Newspapers are not read by illiterate people.

Assignment 1

1. **Use any of the five words in a sentence to show that you understand their meaning.**
   a) _____
   b) _____
   c) _____
   d) _____
   e) _____

2. **Use the correct form of the words given in the brackets to complete the sentences.**
   a) That _____ drew wonderful cartoons. (cartoon)

b) We shouldn't hide information from the news _____ (to report)

c) The news paper _____ full of messages about Corona Virus. (to be)

d) Read all these _____ and know the detailed meaning of his idea. (story)

e) Mr. Lubya is one of the _____ that I like. (edit)

f) There are many job _____ in the newspapers. (advertise)

g) I had just heard that _____ over the radio. (to announce)

h) Kairu wrote a good _____ about the role of news reporters. (compose)

Vocabulary practice

editorial	column	pullout	announcement
columnist	brochure	record	magazine
advertisement	tout	crossword	newsletter

Examples of sentences

1. The Vision Group always touts it clients before the newspaper is put on the market.
2. Different columnists disagreed with the parliamentary decisions.
3. All the invited guests were given brochures about our school.

Assignment 2

1. **Construct eight sentences using any of the above words to show that you understand their meaning.**

a) _____

b) _____

c) _____

d) _____

e) _____

f) _____

g) _____

h) _____

2. **Rearrange the words in ABC order.**

a) editor, edit, editorial, editorialize

_____

b) columnist, crossword, client, column

_____

Use of articles

Words; **a**, **an**, **and**, **the**, are called articles. They are written before nouns.

"a" is used before a word beginning with a ……. sound.

Examples

1. **a** good reporter
2. **a** Ugandan artist

"**an**" is used before a word beginning with a ……. sound.

Examples

1. **an** interesting story
2. **an** hour

"**the**" is used to talk about a particular person or thing.

e.g The book you want is out of print.

It is also used when singular noun presents a whole class

e.g The cows have fed man for a long time.

Assignment 2

Complete the following sentences by filling in **a** , **an** , or **the**

1. Copper is _____ metal.
2. He is not _____ honourable man.
3. Honest journalists report _____ truth.
4. He returned after _____ hour.
5. _____ sun shines brightly.
6. Sir, Martin is _____ university student.
7. I liked _____ cartoons Hope drew.
8. Your friend is _____ news reporter.
9. Rose is _____ European reporter.
10. She is _____ open minded editor.

NOUNS

Nouns are names

Kinds of nouns

a) **Proper nouns** – These are the particular names of persons or things.

Examples of proper nouns

Uganda	Musoke	Rwanda	Christine	Rwenzori
Elgon	Monday	June	Gayaza Junior School	

b) **Common nouns** – These are used to name only one class of people, place or things.

Examples of common nouns

newspaper country book school

Assignment 3

Punctuate the sentences below correctly

1. okello read the news headlines twice

   _____

2. The new vision newspaper is published daily.

   _____

3. mr. mpaka is a good journalist.

   _____

4. is he the man who said such

   _____

5. juma newspaper got torn last night

   _____

6. over fifty Ugandans are victims of the deadly disease the reporter said

   _____

   _____

7. Our teacher said please read Bukedde newspaper daily

   _____

Formation of Abstract Nouns

Abstract nouns are names of things which denote ideas or states (refer to ideas or states)

These nouns cannot be seen and cannot stand on their own.

The abstract nouns are formed from adjectives, verbs, other nouns.

Common endings include; **ment**, **ness**, **al**, **ce**, **cy**, **tion**, **sion** .

Others change the spelling completely.

Examples

ment

advertise	-	advertisement
announce	-	announcement
develop	-	development
measure	-	measurement
achieve	-	achievement
excite	-	excitement

tion

attract	-	attraction
produce	-	production
apply	-	application
repeat	-	repetition
organise	-	organisation
occupy	-	occupation

sion

confuse	-	confusion
confess	-	confession
circumcise	-	circumcision
admit	-	admission

divide	-	division
extend	-	extension
permit	-	permission

Assignment 4

Use the correct form of the word given in the brackets to complete the sentences

1. My _____ to the Vision office was not received. (apply)
2. The newspaper published wrong _____ on Covid-19. (inform)
3. The _____ which appeared in the newspaper was so interesting. (advertise)
4. Having received several _____ , the girl reformed. (punish)
5. News reporters must stand and tell the _____ (true)
6. Our class has already submitted the _____ to the teacher-in-charge. (compose)
7. The news reader's _____ of some words while reading the news was not good. (pronounce)

Additional work

Give the opposite of each of the following words

a) Bachelor - _____
b) Ox - _____
c) Buck - _____
d) Bullock - _____
e) Horse - _____
f) Husband - _____

Some abstract nouns can change **t** or **te** to **ce** or **cy**

Examples

ce

distant	-	distance
innocent	-	innocence
lenient	-	lenience
important	-	importance
patient	-	patience
silent	-	silence
absent	-	absence

cy

agent	-	agency
efficient	-	efficiency
expectant	-	expectancy
pregnant	-	pregnancy

Some abstract nouns add **ness**

holy	-	holiness
shabby	-	shabbiness
bitter	-	bitterness
smart	-	smartness
selfish	-	selfishness
ill	-	illness
cold	-	coldness

Some abstract nouns are irregular so, they do not follow the order.

believe	-	belief
hate	-	hatred

choose	-	choice
lend	-	loan
just	-	justice
succeed	-	success
speak	-	speech
refuse	-	refusal
know	-	knowledge

Assignment 5

Use the correct form of the words in the brackets to complete the sentences.

1. The church _____ was live on UTV. (serve)
2. The teacher told the learners to give a clear _____ (explain)
3. The _____ day awaits all the sinners. (judge)
4. The members of parliament have a fixed _____ that is paid to them. (allow)
5. The Ministry of Education is to supply _____ tests to the learners during this lockdown. (revise)
6. Bukedde Television appreciated its _____ during the Easter season. (support)

Additional work

Give the opposites of;

a) Ram - _____
b) Wizard - _____
c) duck - _____
d) dog - _____
e) steward - _____

Collective nouns

These are names given to groups of things collected together.

Examples

A troop of lions

A choir of singers

A gang of thieves/workmen/prisoners

A swarm of bees

A team of oxen

A troupe of dancers

A fleet of cars

A flight of birds

A flock of sheep

Assignment 6

Re-write giving one word for the underlined group of words.

1. There were many people watching the football match at the stadium.

   _____

2. I was among the people who attended the church service.

   _____

3. Their school lacks a collection of books.

   _____

4. Our headteacher bought books, pens, pencils and reams of paper from the bookshop. _____

   _____

5. He returned the book to the person in charge of the library.

   _____

6. The men who judged football matches in this world cup were paid a lot of money.

   _____

7. She bought mangoes, pineapples, watermelons and apples at that market.

   _____

8. Cruel men beat suspects without mercy.

   _____

9. I have taken long without visiting a collection of wild animals.

   _____

10. As I was going to buy newspapers, I found a group of beautiful ladies on the way. _____

    _____

PRONOUNS

Pronouns are short words used to replace nouns.

Kinds of Pronouns

1. **First person pronouns**: These refer to the person speaking.
   Examples; I, my, myself, mine, me, we, our, ours, ourselves, us.
2. **Second person pronouns**: These refer to the person being spoken to.
   Examples; you, your, yours, yourselves, yourself.
3. **Third person pronouns**: These refer to the person being talked about.
   Examples; he, his, him, himself,
   she, her, herself,
   it, its, itself
   they, them, their, theirs, themselves.

   Those are also called personal pronouns which refer to persons.

Object pronouns; These are pronouns which replace the objects of the sentences.

Examples; Rebecca bought two pens

Rebecca bought them.

Jane went with James to the shop.

Jane went with him to the shop.

Note: Object pronouns normally are used after words like; **with**, **by**, **for** and **to**

Examples of object pronouns

me, them, her, him, it, us, you i.e,

Please send that pen to him

Peter has gone with her to the market.

Subject pronouns; These are pronouns which replace the subject of the sentence.

Examples

Sandra has bought today's New Vision

She has bought today's New Vision.

John and Paul like reading the Daily Monitor more than reading the New Vision.

They like reading the Daily Monitor more than reading the New Vision.

Examples of subject pronouns

they, she, he, it, you, e.g It has taken all the baby's milk

Assignment 7

1. Peter bought _____ for his father. (them, they)
2. We visited _____ last week. (she, her)
3. The judge sent _____ to prison. (he, him)
4. The headmaster thanked _____ for helping. (he, him)
5. Call my sister and _____ (I, us)
6. We invited the whole of _____ family to the party. (them, their)
7. I have just bought _____ this newspaper. (they, them)

8. Construct four correct sentences using the subject pronouns.
   a) _____
   b) _____
   c) _____
   d) _____

Possessive Pronouns

These are used to show ownership

Examples: his, hers, theirs, mine, yours, ours, its, one's

That is Mary's bed
That bed is hers

A friend of mine has married.

Assignment 8

Construct five sentences using possessive pronouns

1. _____
2. _____

3. _____
4. _____
5. _____

Relative Pronouns

These are pronouns which are used in clauses which are related.

e.g: **who**, **whose**, **which**, **that** and **whom**

Examples: Join these clauses

This is the puzzle. I told you about.

This is the puzzle about which I told you.

There comes the journalist. He took our photograph.

There comes the journalist who took our photograph.

Join these clauses using suitable relative pronouns

N.B: **Who** is used for persons only.

Whose is the possessive of **who**.

"**Which** " does not refer to people mainly, so it is used for things with or without life.

Assignment 9

1. The newspapers are not for sale. He has the newspapers.

   _____

2. The boys were punished. They were lazy.

   _____

3. The cat killed the rat. The rat ate the corn.

   _____

4. Bring me the books. The books lie on the table.

_____

5. Hanifa is the girl. She showed me a story funny cartoon.

_____

_____

6. Here is the article. Our headteacher read it on the assembly.

_____

_____

7. This is the boy. He lent me the magazine.

_____

8. That is the student. He excelled in P.L.E 2017.

_____

9. The goat is here. It ate my money.

_____

Relative Pronouns with Prepositions

- to whom
- with whom
- for whom
- by whom
- about whom
- about which
- in which
- at which

Examples

Join these clauses

1. I sat with the lady in the bus. She was going to Moyo.
   The lady **with whom** I sat in the bus was going to Moyo.

2. That is the headmaster. You should address you letter to him.
   That is the headmaster **to whom** you should address your letter.

Assignment 10

Join the following sentences using the suitable relative pronouns.

1. That is the boy. I gave the keys to him.

   _____

2. He is the boy. I played football with him.

   _____

3. The old lady is my grandmother. You spoke to her this morning.

   _____

   _____

4. The man cried bitterly. His wife died.

   _____

5. That is the soldier. His gun was stolen by Ali.

   _____

6. The bag is not here. I put my novel in it.

   _____

7. Where is the snake? I killed it yesterday.

   _____

Re**flexive Pronouns**

These pronouns use the word **self** for singular and **selves** for plural.

Examples;

himself, myself, herself, itself, yourself, oneself

ourselves, themselves, yourselves

1. I always read the newspaper myself.
2. One is expected to care for oneself.

Demonstrative Pronouns

These direct a particular attention to a person, thing or place.

Examples; **this**, **that**, **those**, **these**

Assignment 11

These direct a particular attention to a person, thing or place.

Examples: **this**, **that**, **those**, **these**

Re-write the sentences as instructed.

1. No one helped Juma to carry water. (Begin: Juma ……)

   _____

2. Little Lisa read the newspaper. No one helped him. (Re-write as on sentence and end; ……. herself.) _____

   _____

3. Nobody helped my sister to write the work. (Begin: My sister ……..)

   _____

4. The boy struggled till he drew a picture. Nobody helped him. (Re-write as on sentence and end; ……. himself.) _____

   _____

5. This is Julie's pen. (Begin: These ……)

   _____

6. Hadijah bought a newspaper. Nobody gave her the money. (Re-write as on sentence and end; ……. herself.) _____

   _____

7. That is my wife. (Re-write the sentence in plural)

   _____

8. You should fight for yourself. (Re-write and begin: One ……)

   _____