P.4 MATHEMATICS LESSON NOTES TERM III

Theme   :   Measurements
Topic   :   Money
Subtopic   :   Identifying Uganda Coins and notes
<u>Competences</u>
Subject   :   The learner identifies coins and notes
Language   :   Describes different coins and notes
Methods   :   Group discussion, guided discovery and brain storming
Content   :   Identifying Uganda coins and notes

<u>Identifying Uganda coins and notes</u>
<u>Examples</u>
1. Tom has 2 coins of shs. 500 and 2 notes of shs. 1000. How much money does Tom have?

    2 coins of shs 500   2 notes of sh. 1000

    sh. 5 0 0   sh. 10 0 0
    <u> x   2</u>   <u>x   2</u>
    <u>sh. 1000</u>   <u>sh. 2 0 0 0</u>

    <u>Total</u>
      Sh. 2 0 0 0
    <u>+ Sh. 1 0 0 0</u>
      <u>Sh. 3 0 0 0</u>

    <u>Therefore: Tom has sh. 3000</u>

2. I have 3 coins of sh.200, 4 coins of sh. 500 and 3 notes of sh. 2000. How much money do I have altogether?

    sh. 2 0 0   sh. 5 0 0   sh. 2 0 0 0
    <u> x   3</u>   <u>x   4</u>   <u>x   3</u>
    <u>sh.   600</u>   <u>sh.   2000</u>   <u>sh.   6 00 0</u>

    <u>Total</u>
      Sh. 6 0 0 0
    <u>+ Sh. 2 0 0 0</u>
      <u>Sh.   6 0 0</u>
      <u>Sh. 8, 60 0</u>

    <u>Therefore: I have shs. 8600.</u>

Activity
1. John has 2 coins of sh. 500, 3 notes of shs. 1000 and 3 notes of shs. 2,000. How much money does John have?

2. Paul banked 3 notes of shs. 20,000 and 2 notes of sh. 5000. How much money did he bank altogether?

3. I have 1 coin of sh. 500 and 2 notes of shs. 1000. How much money do I have altogether?

4. Bella has 1 note of sh. 50,000, 1 note of sh. 20,000 and 4 notes of shs. 5000. How much money does she have altogether?

5. Find the total if one has 5 notes of sh. 10,000 each.

6. Workout the total amount if one has 2 notes of sh. 5000 and 2 coins of sh. 500.

7. Sarah paid the debt using 3 notes of shs. 20,000 and 1 note of sh. 5000. How much did she pay altogether?

Evaluation
i) Strength
ii) Weakness

Theme   :   Measurements
Topic   :   Money
Subtopic   :   Writing money in words
<u>Competences</u>
Subject   :   The learner writes money in words
Language   :   The learner reads and spells words correctly
Methods   :   Group discussion, guided discovery
Content   :   Writing money in words

<u>Writing money in words</u>
<u>Examples</u>

1. Write sh. 72,600 in words

Thousands	|Units
72	600

<u>Seventy two thousand six hundred shillings</u>

2. Write shs. 2,850 in words

Thousands	|Units
2	850

<u>Two thousand eight hundred fifty shillings</u>

3. Write 77,454 in words

Thousands	|Units
77	454

<u>Seventy seven thousand four hundred fifty four shillings</u>

Activity
Write the following in words
1. Sh. 6800
2. Sh. 20350

3. Sh. 17740
4. Sh. 102,405
5. Sh. 12,450
6. Sh. 100,100
7. Shs. 999,999

Evaluation
1. Strength
2. Weak areas
3. Way forward

Theme   :   Measurements
Topic   :   Money
Subtopic   :   Buying and selling involving addition

<u>Competences</u>
Subject   :   The learner adds the given amounts
Language   :   The learner role plays using money
Methods   :   Group discussion, guided discovery
Content   :   Buying and selling involving addition

<u>Buying and selling involving addition</u>
<u>Examples</u>
1. Add: shs. 170 + shs. 250
            shs. 170
            shs. 250
            shs. 420   = shs. 420

2. Mrs. Mayiga bought a bunch of matooke at sh. 6500 and sh. 500. How much did she spend altogether?

   <u>Matooke and tomatoes</u>
     shs. 6 5 0 0
   + <u>shs.   5 0 0</u>
     <u>shs. 7 0 0 0</u>

   <u>Therefore: She spent shs. 7000 altogether</u>

3. John bought soda at sh. 600 and shs. 1200. How much did he pay?
     shs. 1 2 0 0
   + <u>shs.   6 0 0</u>
     <u>shs. 1 8 0 0</u>

   <u>Therefore: John paid shs. 1800</u>

4. Lilian bought a packet of biscuits at sh. 1200 and a bar of soap at shs. 1000. How much did she pay?

Biscuit   Sh. 1 2 0 0

        +

Soap   <u>Sh. 1 0 0 0</u>

        <u>Sh. 2 2 0 0</u>

<u>Therefore : She paid sh. 2200</u>

5. Opolot bought a loaf of bread at shs. 1800, 2 bottles of soda at sh. 1200 each and a box of matches at shs. 100. How much did he pay altogether?

<u>Bread</u>	<u>Soda</u>	<u>Matches</u>	<u>Total</u>
s. 1800	1200	Sh. 100	Sh. 2400
	<u>x 2</u>		Sh. 1800
	2400		<u>Sh. 100</u>
			<u>Sh. 4300</u>

<u>Therefore: He paid sh. 4300</u>

Activity

1. Wasaba bought soda at sh. 1500 and bread at sh. 1200. How much did he pay?

2. A porter earns shs. 1500 in the morning and sh. 2700 in the afternoon. How much does the porter earn altogether?

3. Add: Sh.   4 5 4 0

    + <u>Sh.   3 6 8 0</u>

      <u>Sh.   2 6 4 0</u>

4. Add: Sh.   1 7 8 0

    + <u>Sh.   2 6 4 0</u>

    _____

5. John had sh. 4,500 and Mary had sh. 3750. How much money do the two children have altogether?

6. A mother bought meat for sh. 2500 and a bunch of matooke for sh. 4550. How much did she spend altogether?

7. Ankunda bought tooth paste for sh. 1500 and a tooth brush for sh. 2200. How much did she pay altogether?

8. Alice's school fees is sh. 7,850 and Jane's fees is sh. 1,890. How much money do the two pupils pay altogether?

9. Add sh. 380 to sh. 1490.

10. I had sh. 480 and I was given sh. 1,260. How much do I have altogether?

Evaluation
1. Strength
2. Weakness
3. Way forward

Theme   :   Measurements
Topic   :   Money
Subtopic   :   Buying and selling involving subtraction
Competences
Subject   :   The learner subtracts money
Language   :   The learner role plays using money
Methods   :   Brainstorming, group discussion, discovery
Content   :   Buying and selling involving subtraction

Buying and selling involving subtraction
Examples
1. Subtract : sh. 9800 – shs. 5300

    Sh. 9 8 0 0
 - Sh. 5 3 0 0
    Sh. 4 5 0 0   = sh. 4500

2. How much change will you get from a thousand shilling note if you spend sh. 350?

    Sh. 1 0 0 0
 - Sh.   3 5 0
    Sh.   6 5 0   = Change is sh. 6 5 0

3. Subtract Sh.   2 5 0 0 0
          - Sh.   1 2 4 5 0
             Sh.   1 2 5 5 0   = sh. 12,550

4. How much change do I get if 1 spends 6500 from sh. 20,000.

    Sh. 2 0 0 0 0
 - Sh.   6 5 0 0
    Sh. 1 3 5 0 0   = I will get sh. 13,500

Activity
1. Ashaba had a shs. 1000 note. She bought a pawpaw at sh.500 and a mango for sh. 100. What was Ashaba's balance?

2. Kalema had sh. 5000 and bought Irish potatoes at shs. 2,500. How much money did he remain with?

3. A gola had sh. 10,000 and bought a bunch of bananas at shs. 7000. What was her balance?

4. Kembelo had sh. 1000 and spent sh. 450. What was his change?

5. Martha had a five thousand shilling notes and she bought a biscuit at sh. 800. What was her change?

6. Naigino had sh. 5000, if she spends sh. 3570 on Vaseline, what is her change?

7. Atto paid a shopkeeper sh. 10,000 for a book costing sh. 450. What was her change?

8. Subtract   Sh.   9 5 4 5 0
                  - Sh.   4 1 9 7 0
                  _____

Theme   :   Measurements
Topic   :   Money
Subtopic   :   Buying and selling involving multiplication
Competences
Subject   :   The learner multiplies money
Language   :   The learner role plays, using money
Methods   :   Group discussion, guided discovery
Content   :   Buying and selling involving multiplication

Buying and selling involving multiplication
Example
1. Multiply : Sh. 8 9 6
            x Sh.   6
              Sh. 5376

2. A kilogramme of margarine costs shs. 4500. How much will one pay for 2 kg
        1 kg   = sh. 4 500
        2 kg   = sh. 4 500
              x   2
        Sh.   9000   = One will pay sh. 9000

3. Find the cost of 5 exercise books, if one book costs sh. 320.
        1 book   = sh. 320
        5 books = sh. 320
              x   5
        Sh.   1,600   = 5 exercise books cost sh. 1600

4. One pen costs sh. 1500. How much will 6 pens cost?
        1 pen   = sh. 1500
        6 pens = sh. 1500
              x   6
        Sh.   9000   = 6 pens will cost sh. 9000

5. A tin of shoe polish costs sh. 2700. How much will you pay for 9 such tins
        1 tin   = sh. 2700
        9 tins   = sh. 2700
              x   9
        Sh.   25,200   = You will pay sh. 25,200 for 9 tins

Activity
1. Workout

   a) sh. 9 4 5   b)sh. 1500

        x   2   x   9

2. The cost of 1 loaf of bread is shs. 1600. Find the cost of 3 loaves.

3. The cost of 1 shirt is sh. 7500. Find the cost of 4 shirts.

4. The cost of a book is sh.370. find the cost of 10 books.

5. A bag of sweet potatoes costs shs. 14,000. Find the cost of 6 bags of the same sweet potatoes.

6. A basket of flour costs sh. 24,000. If a school bought 4 baskets of flour, how much money did it spend?

7. A bottle of soda cost shs. 600. Find the cost of 8 similar bottles of soda.

8. A shirt cost shs. 25,000. Find the cost of 4 similar shirts.

9. A tin of nido cost sh 14,500. Find the cost of 3 similar tins of nido.

10. A tin of kimbo costs sh. 2900. Find the cost of 9 similar tins of kimbo.

Evaluation
1. Strength
2. Weakness
3. Way forward

Theme   :   Measurements
Topic   :   Money
Subtopic   :   Buying and selling involving division
<u>Competences</u>
Subject   :   The learner divides the given amount
Language   :   The learner role plays using money
Methods   :   Guided discovery, group discussion and brain storming
Content   :   Buying and selling involving division

<u>Buying and selling involving division</u>
<u>Examples</u>
1. A man bought a basket of 5 mangoes at sh. 1000. How much did he pay for each mango?
   5 mangoes cost sh. 1000
   1 mango costs sh. $\frac{\cancel{1000}^{200}}{\cancel{5}_1}$
   1 mango costs sh. 200
   <u>He paid sh. 200 for one mango</u>

2. A shopkeeper sold 4 crates of soda for sh. 7200. What was the cost of 1 crate of soda?
   5 crates = sh 7200
   1 crate = sh. $\frac{\cancel{7200}^{\ 1800}}{\cancel{4}_1}$
   1 crate costs sh. 1800
   <u>The cost of 1 crate of soda is sh. 1800</u>

3. Agutu bought 9 litres of petrol for sh. 14,850. What is the cost of petrol per litre?
   9 litres cost sh. 14850
   1 litre costs sh. $\frac{\cancel{14850}^{\ 1650}}{\cancel{9}_1}$
   <u>1 litre costs sh. 1650</u>

4. Sarah bought 6 mangoes at sh. 3600. Find the cost of each mango
   6 mahors cost sh. 3600
   1 mangor costs sh. $\frac{\cancel{3600}^{\ 600}}{\cancel{6}_1}$
   <u>1 mango costs sh. 600</u>

5. Divide sh. 81000 by 9
   sh. $\frac{\cancel{81,000}^{\ 9000}}{\cancel{9}_1}$
   <u>sh. 9000</u>

   Activity
   1. A farmer sold 8 bags of coffee for sh. 40,000. What was the price of one bag?

   2. Akello gave sh. 1200 to her 3 children to share equally. How much did each child get?

   3. Share sh. 1,400 among 7 boys. How much will each get?

   4. 10 workers were paid sh. 100,000 to share equally. How much money did each worker get?

   5. I paid shs. 6000 for 5 kg of flour. What is the cost of 1kg?

   6. Joan bought 3 litres of paraffin at sh. 5400. What is the cost of 1 litre of paraffin?

   7. A basket of 9 oranges costs shs. 1800. What is the cost of one orange?

   8. Six tooth brushes cost shs. 9000. Find the cost of one tooth brush.

   9. A family buys 3 litres of milk at sh 7500. What is the cost of 1 litre of milk?

   10.   Share sh. 72,000 among 3 girls. How much will each girl get?

Evaluation
1. Strengths
2. Weak areas

3. Way forward

Theme   :   Measurement
Topic   :   Money
Subtopic   :   Interpreting shopping bill
Competences
Subject   :   The learner interprets the given bill
Language   :   The learner reads and writes words
Methods   :   Guided discovery and brainstorming
Content   :   Interpreting shopping bills

Interpreting shopping bill
Examples
1. Study the shopping list below and use it to answer questions that follow:-

Item	Price in shillings
Salt	Sh. 500 per kg
Sugar	Sh. 1200 per kg
Soap	Sh. 700 per bar
Rice	Sh. 1000 per kg
Bread	Sh. 700 per loaf

a) Find the cost of 2kg of sugar
1kg = sh. 1200
2kg = sh. 1200
           x   2
      sh.2400

Therefore: 2 kg of sugar cost sh. 2400

b) What is the cheapest item in the table?
A kg of salt

c) Find the cost of 2kg of salt and 4kg of rice

Salt   Rice   Total
sh. 5 0 0   Sh. 1000   sh. 4000
   x   2   x   4   +sh. 1000
sh. 1000   sh. 4000   sh. 5000

Therefore : The total amount will be shs. 5000

d) Find the total cost of all the items

       Sh. 1 2 0 0
       sh. 1 0 0 0
    + Sh.   7 0 0
       Sh.   7 0 0
       Sh.   5 0 0
       Sh. 4,1 0 0

<u>The total amount for all items is sh. 4100</u>

Activity
Study the table below and answer the questions that follow:-

Item	Cost
Posho	Sh. 1500 per kg
Rice	Sh. 3000 per kg
Meat	Sh.6000 per kg
Milk	Sh. 1200 per litre
Oranges	Sh. 500 per orange

a) How much is 3kg of rice?
b) Find the cost of 2kg of posho and 1kg of meat
c) Find the cost of 5 litres of milk.
d) Find the cost of 4 oranges and 1kg of rice.
e) Okello bought all items, how much did he spend altogether?

Evaluation
1. Strengths
2. Weakareas
3. Way forward

Theme   :   Measurements
Topic   :   Money
Subtopic   :   Completing shopping tables
<u>Competences</u>
Subject   :   The learner completes shopping tables
Language   :   The learner reads and spells words correctly
Methods   :   Guided discovery, group discussion and brain storming
Content   :   Completing shopping tables

1. <u>Competing shopping tables</u>

Item	Quantity	Unit cost	Total cost
Books	5	sh.300each	sh.1500
Pens	2	shs. 1000	sh. 2000
Rubber	2	shs. 600 each	shs.1200
Total expenditure			shs.4700

sh.300 x 5 _____	sh. ~~2000~~ ^{1000} ~~2~~$_1$ =sh. 1000	sh. ~~12~~^{2}~~00~~ 6,00 =sh. 2	2000 + 1500 1200 4700

2. <u>Complete the shopping bill below</u>

Item	Quantity	Unit cost	Total cost
Sugar	3kg	sh. 2200 each	sh <u>6600</u>
Salt	2 packets	shs. <u>150</u>	sh. 300
Cooking oil	<u>3 litres</u>	sh. 1500 each	sh. 4500
Total expenditure			shs.11,400

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Activity

Complete the shopping bills below

Item	Quantity	Unit cost	Total cost
Rice	3kg	sh. 900	shs._____
Meat	2kg	shs._____	shs. 4000
Tomatoes	___kg	shs. 600	shs, 1200
Total expenditure			shs._____

Item	Quantity	Unit cost	Total cost
Pencils	2	sh. 400	shs._____
Pens	2	shs._____	shs. 5000
Books	_____	shs. 200	sh. 2400
Total expenditure			Shs._____

Item	Quantity	Unit cost	Total cost
Beans	3kg	sh.1000 a kg	sh._____
Sugar	2kg	sh. 2500	sh. _____
G. nuts	5kg	sh._____	sh. 10000
Soya	___kg	Sh. 1800	Sh. _____
Total expenditure			sh._____

Evaluation
1. Strength
2. Weakness
3. Way forward

Theme   :   Measurements
Topic   :   Money
Subtopic   :   Calculating profits
<u>Competences</u>
Subject   :   Calculates simple profits
Language   :   Uses examples to describe profits
Methods   :   Brain storming, Guided discovery and discussion
Content   :   Calculating profits

<u>Calculating profits</u>
<u>Examples</u>
1. A shopkeeper buys a book at sh. 150 and sells it at sh. 200. What profit does he get?
   Profit = selling price – buying price
   P = S.P – B.P
   P = Sh. 200 – sh. 150
   P = sh. 50

   <u>Therefore profit = sh. 50</u>

2. Abdul bought a shirt at sh. 800. He sold it at sh. 1000. What was his profit?
   Profit = selling price – buying price
   P = S.P – B.P
   P = Sh. 100 – sh. 800
   P= sh. 200

   Therefore his profit was sh. 200

3. The cost of a radio is sh. 12,300. Musa sold the same radio at shs. 15,000. Find his profit.
   Profit = Selling price – Buying price
   P = S.P – B.P
   P = Sh. 15,000 – sh. 12,300
   P = sh. 2,700

   Therefore his profit is sh. 2,700

4. Kato bought a pen at sh. 500 and sold it at sh. 700. What was his profit?
   Profit = Selling price – Buying price
   P = S.P – B.P
   P = sh. 32,000 – sh. 25,000
   P = sh. 7000

   Therefore his profit was sh. 7,000

Activity
1. Nampyo sold a book at sh. 900 which she had bought at sh. 750. What was her profit?

2. Ouma bought a packet of sugar at sh. 1,500 and sold it at sh. 2,000. What was his profit?

3. A lady sold a goat at sh. 7,500 which she bought at sh. 5000. What was her profit?

4. A shopkeeper bought a bag at sh. 13,000 and sold it at sh. 18,000. What was the profit?

5. A radio was bought at sh. 19000. Find the profit Kaaki made after selling that radio at sh. 23,000.

6. Kabundi bought a pair of shoes at sh. 27,000 and sold it at sh. 36,000. What was his profit?

7. The price of a dress was shs. 12,000. It was later sold at sh. 15,000. What was the profit?

8. A man bought a coat at sh. 35,000 and sold it at sh. 42,000. How much was his profit?

9. A cupboard is sold at shs. 72,000. What profit is made if it was bought at sh. 63,000?

10.   Kiiza bought a goat at shs. 40,000 and sold it at sh. 53,000. How much profit did he make?

Theme	:	**Measurements**
Topic	:	**Money**
Subtopic	:	**Calculating loss**

Competences

Subject	:	**The learner calculates losses**
Language	:	**The learner uses examples to describe losses**
Methods	:	**Group discussion, guided discovery**
Content	:	**Calculating loss**

Calculating loss

Examples

1. Joseph bough a shirt at sh. 22000. Later he sold it to John at sh. 15,000. How much loss did John make?
   Loss = Buying prince – selling price
   Loss = sh. 22,000 – sh. 15000
   Loss = sh. 7,000

   Therefore – John made a loss of sh. 7000

2. Ntanda bought a book at sh. 350 and sold it at sh. 250. What amount did he lose?
   Loss = Buying Price – selling price
   Loss = B.P – S.P
   Loss = sh. 350 – sh. 250
   Loss = sh. 100
   Therefore - Loss = sh. 100

3. Opini bought a book at sh. 1200 and sold it at sh. 800. What was his loss?
   Loss = Buying price – selling price
   Loss = B.P – S. P
   Loss = sh. 1200 – sh. 800
   Loss = sh. 400
   Therefore – His loss was sh. 400

4. Natukunda bought a table at sh. 11,000 and sold it at sh. 8,000. What was her loss?
   Loss = Buying Price – Selling price
   Loss = B.P – S.p
   Loss = Sh. 11,000 – sh. 8000
   Loss= sh. 3000
   Therefore Loss was sh. 3000

5. Ssozi bought a cup of sh. 3500 and sold it at sh. 3000. Calculate the loss he made.
   Loss = Buying price –Selling price
   Loss = B.P – S.P

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Loss =- sh. 3500 – sh. 3000
Loss = sh. 500
<u>**Therefore – He made a loss of sh. 500**</u>

<u>**Activity**</u>
1. Kato bought a box of cakes at sh. 1,500 and sold it at sdh. 1200. What was his loss?

2. Akiru bought a pen at sh. 1,800 and sold it at sh. 1300, what was her loss?

3. What was the loss on a commodity bought at sh. 2,000 and sold at sh. 1700?

4. Annet bought a mathematical set at sh. 2,800 and sold it at sh 2, 200. What was the loss?

5. Annet sold a bottle of milk at sh. 1500 which bought at sho. 1900. What was the loss?

6. A box of Kimbo is bought at sh. 3500 and sold at sh. 2900. What is the loss?

7. Martha bought a suit case at sh. 9,200 and sold it at sh. 8300. What was her loss?

8. Batte bought a bag at sh. 12500 and sold it at sh. 10,000. What loss did Batte make?

9. Find the loss made on an article bought at sh. 37500 and sold at sh. 33,000.

10. Akide bought a chair at sh. 42,750. She sold this chair at sh. 39,000. Calculate the loss she made.

Evaluation

Strength

Weakness

Way forward

Theme	:	Measurements
Topic	:	Money
Subtopic	:	Finding buying price

<u>Competences</u>

Subject	:	The learner finds the buying price
Language	:	The learner reads, spells and pronounces words
Methods	:	Group discussion, brain storming and guided discover
Content	:	Finding buying price

Finding buying price
Note
Buying price = Selling price – Profit
Buying price = Selling price + Loss

Examples
1. Sarah sold a skirt at sh. 10,000 and got a profit of sh. 3000. At what price did she buy the skirt?
   Buying price – Selling price – Profit
   B.P = S.P – P
   B.P = sh. 10,00 – sh. 3000
   B.P = sh. 7,000

   <u>Therefore - She bought the skirt at sh. 7000.</u>

2. Opolot made a profit of sh. 5,000 after selling a bicycle at sh. 95,000. At what price did he buy the bicycle?
   Buying price = Selling price – Profit
   B.+ = S.P – P
   B.P = sh. 95,000 – sh. 5,000
   B.P = sh. 90,000

   <u>Therefore - Opolot bought a bicycle at sh. 90,000.</u>

3. John sold a skirt at sh. 10,000 and made a loss of sh. 3000. At what price did he but the skirt?
   Buying price = Selling price + Loss
   B.P = S.P + L
   B.P = sh. 10,000 + sh. 3000
   B.P = Sh. 13,000

   <u>Therefore – John bought a skirt at sh. 13000</u>

4. Abel bought a pen and sold it at sh. 200 and made a loss of sh. 50. At what price did he buy a pen?
   Buying price   = Selling price + Loss
   B.P = S.P + L
   B.P = Sh. 200 + sh. 50
   B.P = sh. 2500

<u>Therefore : Abel bought a pen at sh. 250</u>

Activity

1. Akol sold a cup at sh. 1000 and got a profit sh. 200. At what price did she but the cup?

2. Sarah sold a skirt at sh. 20,000 and made a profit of sh. 6000. How much did she buy the skirt?

3. Jane sold a bicycle at sh. 98,000. She made a profit of sh. 8000. How much did she buy the bicycle?

4. John sold a pair of trousers at sh. 33000 and made a profit of sh. 3000. How much did he buy the pair of trousers?

5. Tom sold a radio at sh. 17,000 and made a loss of sh. 3000. At what price did he buy the radio?

6. Joan sold a book at sh. 5000 and made a loss of shs. 4000. How much did she buy the book?

Evaluation

Strength

Weakness

Way forward

Theme   :   Measurements
Topic   :   Money
Subtopic   :   Finding selling price
<u>Competences</u>
Subject   :   The learner finds selling price
Language   :   The learner reads the questions correctly
Methods   :   Group discussion, discovery
Content   :   Finding selling price

Finding selling price
Note
Selling price – Buying price + profit

Selling price = Buying price – Loss

Examples

1. Sarah bought a skirt at sh. 2500. She sold and made a profit of sh. 5000. At what price did she sell the skirt?
Selling price = Buying price + Profit
S.P = B.P + P
S.P = Sh. 25000 + sh. 5000
S.P = sh. 30,000

Therefore- She sold the skirt at sh. 30,000

2. Paul bought a watch at sh. 18000. He sold it and got a profit of sh. 2000. At what price did he sell the watch?
Selling price = Buying price + Profit
S.P = B.P + P
S.P = sh. 18,000 + sh. 2000
S.P = sh. 20,000

Therefore- Paul sold the watch at sh. 20,000

3. Robin bought a skirt at sh. 27,000/=. She sold it and made a loss of 3000/=. At what price did she but a skirt?
Selling price = Buying price – Loss
S.P = B.P – Loss
S.P = Sh. 27000 – sh. 3000
S.P = sh. 24000
Therefore- She sold a skirt at sh. 24000

4. Mrs. Opolot bought a place at sh. 2500. And sold it making a loss of sh. 500. At what price did she sell the plate?
Selling price = Buying price – Loss
S.P = B.P – L
S.P = Shs. 25000 – sh. 500
S.P = sh. 2000
Therefore – she sold a plate at sh. 2000

Activity

1. Joan bought a dress at shs. 28000. She sold it and made a profit of sh 2000. At what time did she sell the dress?

2. Kapere bought a radio at sh. 35,000. He later sold it making a profit of sh. 5000. At what time did he sell the radio?

3. Anita bought shoes at sh. 26,000 and later sold it making a profit of 7,000. At what price did she sell the shoes?

4. A parent bought a T.V at sh. 150000. He later sold it and made a loss of sh. 30,000. How much did he sell the TV?

5. Agnes bought a skirt at sh. 28,000. Later she sold it making a loss of 3000/=. At what price did she sell?

Evaluation

Strength

Weakness

Way forward

Theme   :   Measurements
Topic   :   Time
Subtopic   :   Telling time using am and pm

Competences
Subject   :   The learner uses different types of clocks
Language   :   The learner tells time using am and pm
Methods   :   Guided discovery, discussion and brainstorming
Content   :   Telling time using am and pm

Telling time using am and pm
Note
Am for morning time
Pm for afternoon or evening time

Examples
1. Tell the morning time shown on the clock faces below:-
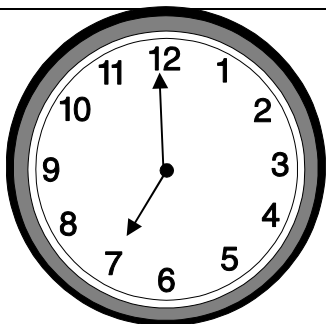
2:00am

9:40am

18
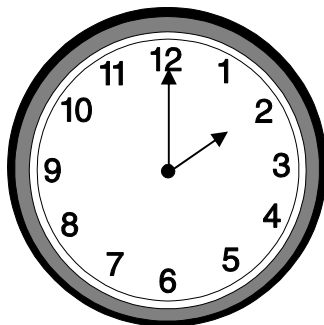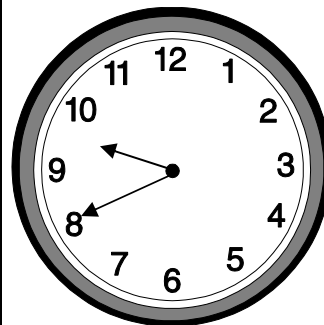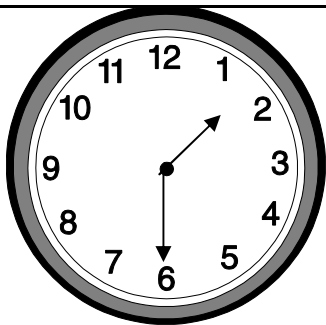
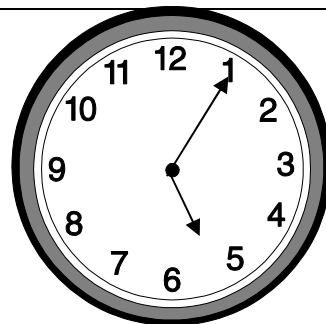1:30am
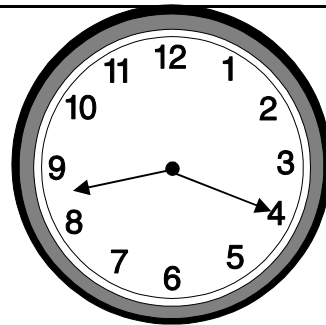
8:20am
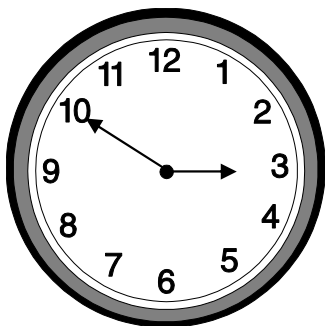
2:50am

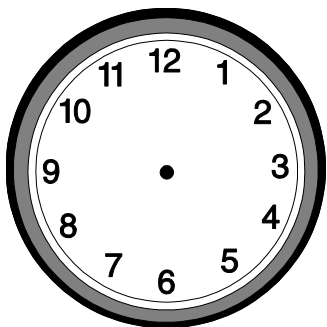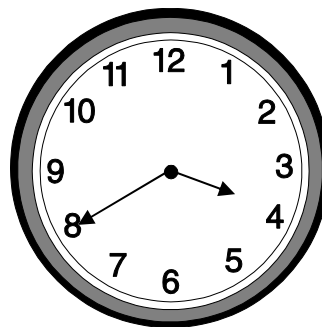2. **Tell the afternoon or evening time shown on the clock faces below**
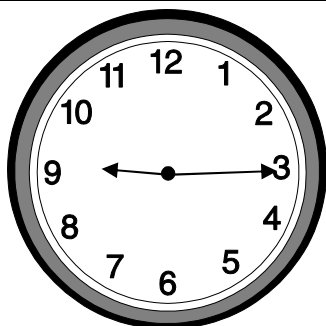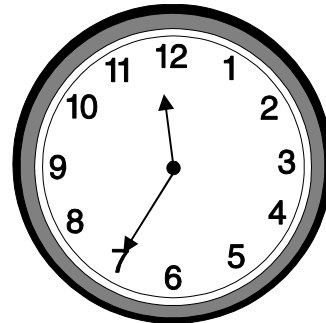

9:15pm
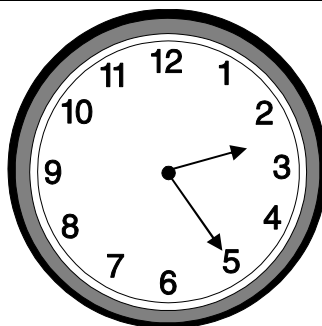
2:25pm

7:00pm

5:05pm

11:45

3:40pm

Activity

1. **Tell the morning time shown on the clock faces below**
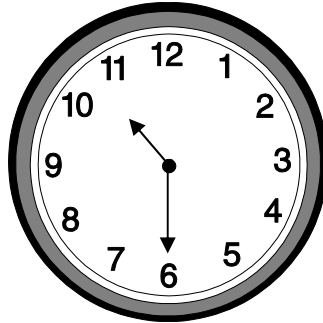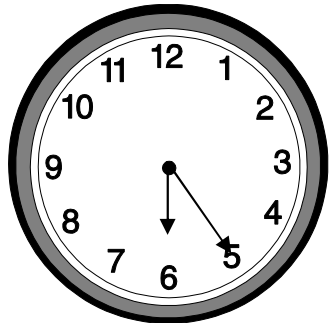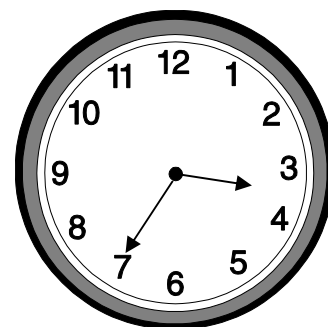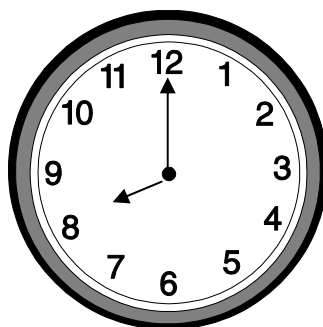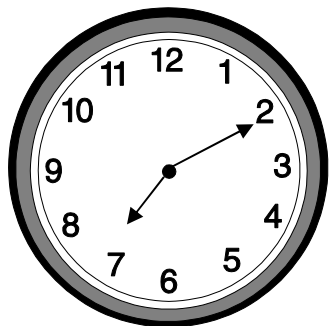
2. **Tell the afternoon or evening time shown on the clock faces below**
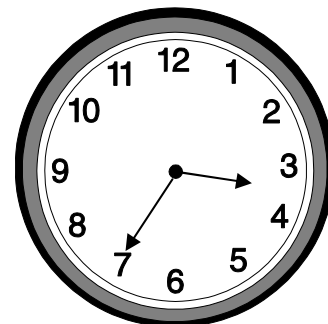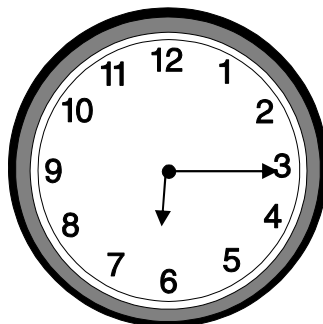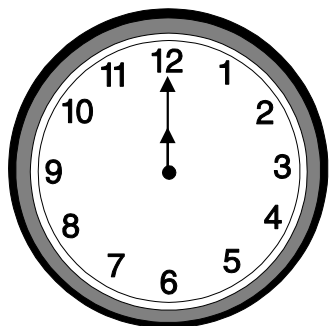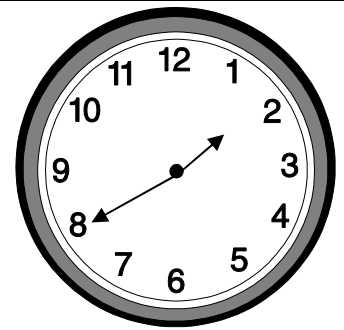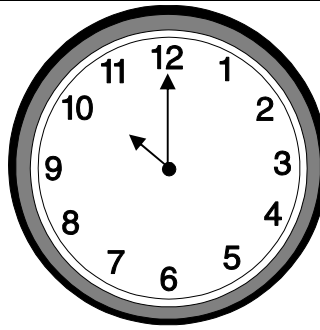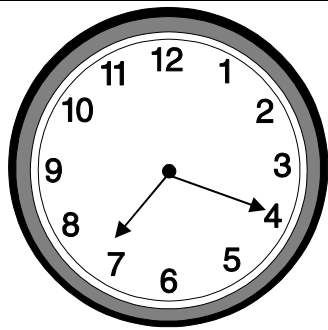
Note: This lesson also used for telling time using "past" and "to"

Theme   :   Measurements
Topic   :   Time
Subtopic   :   changing hours to minutes
<u>Competences</u>
Subject   :   The learner changes hours to minutes
Language   :   The learner gives the minutes in one hour
Methods   :   Group discussion, discovery and question and answer
Content   :   Changing hours to minutes

Changing hours to minutes
1 hour = 60 minutes

Examples
1. Change 4 hours to minutes
   1 hour = 60 minutes
   4 hours = (60 x 4) minutes
   = 240 minutes

   <u>There are 240 minutes in 4 hours</u>

2. Convert 15 hours into minutes
   1 hour = 60 minutes
   15 hours = (60 x 15) minutes
   = 900 minutes

   $$\begin{array}{r} 6\ 0 \\ \underline{\times\ 15} \\ 300 \\ \underline{60} \\ 900 \end{array}$$

   <u>Therefore 15 hours = 900 minutes</u>

3. Change $\frac{1}{3}$ an hour to minutes

   1 hour = 60 minutes
   1 hour = 60 minutes

   $\frac{1}{3}$ an hour = $\cancel{60}^{20}$ x $\frac{1}{\cancel{3}_{1}}$ minutes

   =(20 c 1) minutes
   =20 minutes

21

Therefore $\frac{1}{3}$ an hour = 20 minutes

4. Express 3 ½ hours into minutes
   1 hour = 60 minutes
   3 ½ hours = ($\frac{1}{3}$ x $\cancel{60}^{30}$)minutes
                1
   =(7 x 30) minutes
   = 210 minutes
   = 219 minutes

   Therefore 3 ½ hours = 210 minutes

5. Change 4.5 hours to minutes
   1 hour = 60 minutes
   4.5 hours = ($\underline{45}$ x $\cancel{60}$) minutes
               $\cancel{10}$
   = 45 x 6 minutes
   =270 minutes
   Therefore 4.5 hours = 270 minutes

Activity
Change the following hours to minutes

1. 2hr	2. 5hrs	3. 9hrs	4. 12hrs	5. $\frac{1}{4}$ an hour
6. $\frac{2}{3}$ an hour	7. $2\frac{1}{2}$	8. $7\frac{1}{5}$ hours	9. 3.5 hours	10. 1.5 hours

Evaluation
Strength
Weakness
Way forward

Theme	:	Measurements
Topic	:	Time
Subtopic	:	Changing minutes to hours

Competences

Subject	:	The learner changes minutes to hours
Language	:	The learner gives the hours (past) in a minute
Methods	:	question and answer, guided discovery and discussion
Content	:	Changing minutes to hours.

Changing minutes to hours
Examples
1. Change 180 minutes to hours
   60 minutes = 1 hour
   180 minutes = $\underline{\cancel{180}}^{3}$ hours
              $\cancel{60}_{1}$
   = 3 hours
   <u>Therefore 180 minutes = 3 hours</u>

2. **Change 540 minutes to hours**
    60 minutes = 1 hour
    140 minutes = $\underline{540}$ ^{9} hours
    $\quad\quad\quad\quad\quad$ $\underline{-60}_1$
    = 9 hours

    $$\begin{array}{r} 90 \\ \hline 6 \overline{)5\ 4} \end{array}$$

    0x 6 =$\underline{0}$

    5 4

    Therefore 540 minutes = 9 hours   6x9 =$\underline{5\ \ 4}$

3. **Write 70 minutes in hours**
    70 – 60 = 10 ____ (i)
    I hour and 10 minutes

4. **Change 150 minutes into hours**
    150 – 60 = 90 ___(1)
    90 – 60 = $\underline{30}$ ___ (2)

    2 hours and 30 minutes

5. **Change 130 minutes to hours**
    130 – 60 = 70 ___(1)
    70 – 60 = $\underline{10}$ ___(2)
    2 rem 10
    2 hours and 30 minutes

    Activity

    Change the following minutes into hours
1. **240 minutes**
2. **360 minutes**
3. **300 minutes**
4. **280 minutes**
5. **480 minutes**
6. **420 minutes**
7. **100 minutes**
8. **140 minutes**
9. **200 minutes**
10. **200 minutes**
11. **330 minutes**

Evaluation
-   **Strength**
-   **Weakness**
-   **Way forward**

Theme   :   **Measurements**
Topic   :   **Time**
Subtopic   :   **Changing weeks to days**
<u>**Competences**</u>
Subject   :   **The learner changes weeks to days**
Language   :   **The learner gives the number of days in a week**
Methods   :   **Discovery, question and answer and discussion**
Content   :   **Changing weeks to days**

Changing weeks to days
1 week = 7 days
Examples
1. **Change 3 weeks to days**
    1 week   = 7 days
    3 weeks = (7 x 3) days
    **   = 21 days**
    <u>**Therefore; 3 weeks = 21 days**</u>

2. **How many days are in 8 weeks?**
    1 week   = 7 days
    8 weeks = (8 x 7) days
    **   = 56 days**
    <u>**Therefore; 8 weeks = 56 days**</u>

3. **Change 50 weeks to days**
    1 week   = 7 days
    50 weeks = (70 x 7) days
    **   = 350 days**
    <u>**Therefore; 50 weeks = 350 days**</u>

4. **Convert 24 weeks to days**
    1 week   = 7 days
    24 weeks = (24 x 7) days
    **   = 168 days**
    <u>**Therefore; 24 weeks = 168 days**</u>

5. **How many days are in 9 weeks**
    1 week   = 7 days
    9 weeks = (7 x 3) days
    **   = 21 days**
    <u>**Therefore; 3 weeks = 21 days**</u>

    Activity
    Change the following weeks to days
    1. **7 weeks**
    2. **10 weeks**
    3. **12 weeks**
    4. **15 weeks**
    5. **20 weeks**

6. 30 weeks
7. 35 weeks
8. 49 weeks
9. 42 weeks
10. 5 weeks

Evaluation
- **Strength**
- **Weakness**
- **Way forward**

Theme : **Measurements**
Topic : **Time**
Subtopic : **Changing days to weeks**
Competences
Subject : **The learner changes days to weeks**
Language : **The learner reads sentences correctly**
Methods : **Group discussion, question and answer**
Content : **Changing days to weeks**

Changing days to weeks
 Examples

     0 9

    7 6 3

1. **How many weeks are there in 63 days?**
    7 days   = 1 week   0x7 = 0
    63 days   = ($\cancel{63}\,^9$) weeks
           $\cancel{7}_1$ 6 3
          = 168 days
    <u>Therefore; 63 days = 9 weeks</u>   9x7 = <u>6 3</u>

                                      0 0

2. **Change 693 days to weeks**
    7 days   = 1 week
    693 days   = ($\cancel{693}\,^{99}$) weeks   0 0 9
           $\cancel{7}_1$
          = 99 days   7 6 9 3
    <u>Therefore; 693 days = 99 weeks</u>
                               0x7 = 0

                                6 9

                         9x7 = <u>6 3</u>

                                0 6 3

3. Convert 707 days into weeks

   7 days   = 1 week

   707 days   = $\dfrac{707^{101}}{7_1}$ weeks

              = 101 days

   <u>Therefore; 707 days = 101 weeks</u>

$$
\begin{array}{r}
101 \\
7\overline{)707} \\
\end{array}
$$

   1x7 = <u>7</u>

   0 0

   0x7 = <u>0 0</u>

   0 7

4. Change 637 days to weeks

   7 days   = 1 week

   637 days   = $\left(\dfrac{637^{91}}{7_1}\right)$ weeks

              = 91 days

   <u>Therefore; 637days = 91 weeks</u>

$$
\begin{array}{r}
091 \\
7\overline{)637} \\
\end{array}
$$

   0x7 = <u>0</u>

   6 3

   9x7 = <u>6 3</u>

   007

Activity
change the following days to weeks
1. 35 days
2. 49 days
3. 910 days
4. 1050 days
5. 315 days
6. 595 days
7. 392 days
8. 70 days
9. 175 days
10. 77 days

Evaluation

Theme	:	Measurements
Topic	:	Time
Subtopic	:	Changing Days to hours

<u>Competences</u>

Subject	:	The learner changes days to hours
Language	:	The learner describes how to convert dayscholors
Methods	:	Question and answers, guided discovery and discussion
Content	:	Changing days to hours

Changing days to hours
1 day = 24 hours

Examples
   1. **How many hours are there in 5 days?**
      1 day = 24 hours
      5 days = (24 x5) hours
      **   = 120 hours**
      Therefore 5 days has 120 hours

   2. **Change 17 days to hours**
      1 day = 24 hours
      17 days = (24 x 17) hours
      **   =408 hours**
      Therefore 17 days has 408 hours

   3. **Convert 24 days to hours**
      1 day = 24 hours
      24 days = (24 x24) hours
      **   = 576 hours**
      Therefore 24 days has 576 hours

   4. **Change 50 days to hours**
      1 day = 24 hours
      50 days = (24 x 50) hours
      **   = 1200 hours**
      Therefore 50 days has 1200 hours

   5. **Change 6 ½ days to hours**
      1 day = 24 hours
      6 ½ days = (13 x 24) hours
      **   2**
      **   = 13 x 12 hours**
      **   = 156 hours**
      Therefore 6 ½ days has 156 hours

   Activity
   Change the following days to hours
   1. **4 days**
   2. **6 days**
   3. **10 days**
   4. **13 days**
   5. **15 days**
   6. **19 days**
   7. **21 days**
   8. **30 days**

9. 92 days
10. 7 ½ days
Evaluation

Theme   :   Measurements
Topic   :   Time
Subtopic   :   Changing hours to days
Competences
Subject   :   The learner changes hours to days
Language   :   The learner
Methods   :   Question and answer, brain storming
Content   :   Changing hours to days

Changing hours to days
Examples
1. How many days are there in 72 hours
    24 hours = 1 day
    72 hours = $\frac{\cancel{72}^{3}}{\cancel{24}_{1}}$ days

     = 3 days
    <u>Therefore 72 hours = 3 days</u>

2. Change 216 hours into days
    24 hours = 1 day
    216 hours = $\frac{\cancel{216}^{3}}{\cancel{24}_{1}}$ days

     = 9 days
    <u>Therefore 216 hours = 9 days</u>

3. Change 144 hours to days
    24 hours = 1 day
    216 hours = $\frac{\cancel{216}^{6}}{\cancel{24}_{1}}$ days

     = 6 days
    <u>Therefore 144 hours = 6 days</u>

4. Change168 hours into days
    24 hours = 1 day
    168 hours = $\frac{\cancel{168}^{7}}{\cancel{24}_{1}}$ days

     = 7 days
    <u>Therefore 168 hours = 7 days</u>

    Activity
    Change the following to days
    1. 48 hours
    2. 192 hours
    3. 60 hours

4. 240 hours
5. 720 hours
6. 264 hours
7. 480 hours
8. 120 hours

Evaluation
- **Strength**
- **Weakness**
- **Way forward**

Theme   :   Measurements
Topic   :   Time
Subtopic   :   Addition of time
Competences
Subject   :   The learner adds hours and minutes
Language   :   The learner reads the sentences correctly
Methods   :   Question and answer
Content   :   Addition of time

Addition of time
Examples
1. Add: Hrs   Min
        3   4 0   4 0

    + 4   3 0   + 3 0   70 ÷ 60 = 1 rem 10
        8   1 0   7 0

2. Add: Hrs   Min
        6   1 0   4 0

    + 3   4 0   + 3 0   70 ÷ 60 = 1 rem 10
        9   5 0   7 0

3. Add: Hrs   Min
        4   3 5   35

    + 3   5 0   + 5 0   85 ÷ 60 = 1 rem 25
        8   2 5   85

4. A taxi driver took 2 hours 40 minutes to drive from Kampala to Masaka and 1 hour 45 minutes from Masaka to Kabula. How much time did he take altogether?
        Hrs   Min
        2   4 0   4 0

    + 1   4 5   + 4 5   85 ÷ 60 = 1 rem 25
        4   2 5   8 5

5. At a party, speeches lasted 3 hours 30 minutes, lunch lasted 1 hour 15 minutes and entertainment lasted 2 hours 30 minutes. How long did the party last?

Speeches

	Hrs	Min	
Speeches	3	3 0	3 0
Lunch +	1	1 5	+ 3 0
			7 5
Entertainment	2	3 0	
	7	1 5	

$75 \div 60 = 1$ rem 15

Therefore the party took 7 hours 15 minutes

Activity

1. Workout the following

Hrs	Min
1	3 0
+ 3	3 5
___	___

Hrs	Min
3	3 5
+ 2	3 5
___	___

Hrs	Min
6	3 5
+ 7	4 6
___	___

Hrs	Min
2	2 5
+ 1	3 5
___	___

Hrs	Min
3	4 5
+ 3	5 0
___	___

2. A cyclist rode for 5 hours 30 minutes from Ibanda to Isingiro and 2 hours 35 minutes from Isingiro to Mbarara. How long did he ride?

3. It took 5 hrs 38 minutes to load a vehicle and 4hrs 24 minutes to pack the goods in the store. Find the total time taken.

Evaluation

Theme   :   Measurements
Topic   :   Time
Subtopic   :   Subtraction of time
<u>Competences</u>
Subject   :   The learner subtracts time
Language   :   The learner reads sentences properly
Methods   :   Question and answer, guided discovery
Content   :   Subtraction of time

Subtraction of time
Examples
1. Subtraction

```
        Hrs        Min
          2 3       2 5          60 + 25

        - 1          4 5            85
          1          4 0         -  45
                                    40
```

2. Subtraction

```
        Hrs        Min
          4         2 0          60 + 20

        - 1          5 0            85
          2          3 0         -  50
                                    30
```

3. Gerald took 3 hrs 25 minutes to move from home to town. If he walked for 1 hour 35 minutes and took a taxi for the rest of the journey. How much time did he spend in the taxi?

```
        Hrs        Min
          3         2 5          60

        - 1          3 5          +25
          1          5 0           85
                                   35
                                   50
```

   <u>He spent 1 hr and 50 minutes</u>

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4. Nankunda spend a total of 5 hours 20 minutes at school. she played for 1 hour 30 minutes. For how long did she stay in class?

Hrs	Min
5	2 0

60

- 1	3 0	+20
3	5 0	80

-35
50

She stayed for 3 hrs and 50 minutes

Activity

Subtract the following:

Hrs	Min
6	2 5
- 3	4 0

Hrs	Min
5	1 5
- 1	4 8

Hrs	Min
12	4 5
- 4	56

5. A pupil spent 8 hours 30 minutes at school. If he spent 5 hours 4 minutes in the classroom, how much did he spend outside the classroom?

6. A party lasted 6 hours 30 minutes. If 1 hour 45 minutes were used to serve food, how long did the other events take?

Evaluation

Theme   :   Measurements
Topic   :   Time
Subtopic   :   Finding duration
<u>Competences</u>
Subject   :   The learner finds the duration
Language   :   The learner reads the sentences properly
Methods   :   Question and answers, discussion and discovery
Content   :   Finding duration

Finding the duration
Duration = Ending time – Starting time

Examples
1. A mathematics lesson started at 7:15am and ended at 8:15 am – 7:15am

Hrs	Min
8	1 5
- 7	1 5
1	0 0

   <u>Therefore , the lesson took 1 hour</u>

2. A mathematics lesson started at 8:15am and ended at 9:35 am. How long did it take?
   Duration = Ending time – Starting time
   Duration = 9:35am – 8:15am

Hrs	Min
9	3 5
- 8	1 5
1	2 0

   <u>It took 1 hour 20 minutes</u>

3. John went to sleep at 2:15pm and woke up at 4:00 pm. How long did John take while sleeping?
   Duration = Ending time – Starting time
   Duration = 4:00pm – 2:15pm

Hrs	Min	
4	0 0	
- 2	15	6 0
1	45	- 1 5
		4 5

   <u>He took 1 hour 45 minutes</u>

4. A concert started at 2:30pm and ended at 9:20pm. How long was the concert?

Duration = Ending time – Starting time
Duration = 9:20pm – 2:30pm

Hrs	Min
89	20

-	2	30		6 0
	6	50	+	2 0
				8 0
				-3 0
				5 0

It took 6 hours 50 minutes

Activity
1. A bus started travelling from Jinja at 6:20 am and it reached Iganga at 9:00am. How long did it take?

2. An examination started at 8:45 am and ended at 11:00am. How long did it take?

3. We started our journey at 2:20 pm and reached at 4:05 p.m. How long did the journey take?

4. The baby went to sleep at 1:15pm and woke up at 3:00pm. How long did it take sleeping?

5. Baginza started digging at 6:45am and finished at 11:00 a.m. What time did he take?

6. A concert started at 4:30pm and ended at 10:20 p.m. How long was the concert?

7. A man started slashing at 7:30am and stopped at 11:10 am. How long did he slash?

8. The party started at 1:00pm and ended at 9:00pm. Find out how long it lasted.

Evaluation

Theme	:	Measurement
Topic	:	Time
Subtopic	:	Addition of weeks and days
Competences		
Subject	:	The learner adds weeks and days
Language	:	The learner reads the given questions
Methods	:	Question and answer, guided discussion
Content	:	Addition of weeks and days

Addition of weeks and days
Examples

1. Add:

Weeks	Days
1	3
+ 2	5
4	1

2. A carpenter took 5 weeks 5 days to make a wooden bed and 4 weeks 6 days to make a cupboard. How long did the carpenter take on both?

Weeks	Days
5	5
+ 4	6
10	4

3.

Weeks	Days
2	4
+ 1	5
4	2

4. John spent 2 weeks 3 days at his uncle's home and 1 week 6 days at his friend's home. How long was he away from home?

Weeks	Days
2	3
+ 1	6
4	2

Activity
Add the following weeks and days

Weeks	Days
7	4
+ 3	5

Weeks	Days
2	6
+ 4	4

Weeks	Days
1 2	6
+ 4	5

	Weeks	Days
	9	5
+	2	2

	Weeks	Days
	2	4
+	11	4

	Weeks	Days
	1 2	3
+	1 7	5

A farmer took 3 weeks 3 days to harvest her coffee and 4 weeks 5 days to dry it. What was the total number of weeks and days taken?

Evaluation

Theme   :   Measurements
Topic   :   Time
Subtopic   :   Subtraction of weeks and days
Competences
Subject   :   The learner subtracts weeks and days
Language   :   The learner reads the given questions
Methods   :   Brainstorming, guided discovery
Content   :   Subtraction of weeks and days

Subtraction of weeks and days

Examples

	Weeks	Days
	11	0
-	9	4
	1	3

7 – 4 = 3
10 – 9 = 1

Weeks	Days	
3	2	7 + 2 = 9
- 1	5	9 – 5 = 4
1	4	2 -1 = 1

Weeks	Days	
6	7	7 – 6 = 1
- 3	6	5 – 3 = 2
1	3	

Weeks	Days	
12	5	5 - 2 = 3
- 7	2	12 -7=5
5	3	

Weeks	Days	
4	3	7 + 3 = 10
- 1	4	10 – 4 = 6
2	6	3 -1 = 2

Activity

Subtract the following weeks and days

Weeks	Days
12	1
- 8	5

Weeks	Days
8	2
- 3	5

Weeks	Days
11	0
- 9	4

```
        Weeks    Days
          23       0
 -        16       3

        _____
```

```
        Weeks    Days
          5        3
 -        2        5

        _____
```

```
        Weeks    Days
          7        4
 -        2        6

        _____
```

Evaluation

Theme   :   **Measurements**
Topic   :   **Time**
Subtopic   :   **Months Of The Year**
<u>Competences</u>
Subject   :   **The Learner Changes Years To Months**
Language   :   **The Learner Reads Sentences Correctly**
Methods   :   **Question And Answer, Group Discussion**
Content   :   **Months Of The Year**

Months Of The Year

Examples

1. **How Many Months Make A Year?**
    <u>12 Months</u>

2. **Express ½ Of A Year Into Months**
    1 Year = 12 Months
    ½ A Year = (½ X ~~12~~ ^{6}) Months
    =6 Months

    <u>Therefore ½ A Year = 6 Months</u>

3. **Change 2 Years Into Months**
   1 Year = 12 Months
   2 Years = (12 X 2) Months
    = 24 Months

   Therefore 2 Years = 24 Months

4. **Express 3 ½ Years To Months**
   1 Year = 12 Months

   3 ½ Years = ($\frac{10}{\not{2}}$ X̶ 1̶2̶ ^{4}) Months

   = 10 X 4 Months
   = 40 Months

   Therefore 3 $\frac{1}{3}$ Years = 40 Months

   Activity
   Express The Following Into Months

   1. $\frac{1}{4}$ A Year

   2. $1\frac{1}{3}$ Years

   3. 7 Years

   4. $5\frac{1}{6}$ Years

   5. 3 Years

   6. $1\frac{1}{4}$ Years

Evaluation

Theme	:	**Measurements**
Topic	:	**Time**
Subtopic	:	**Interpreting a calendar**
Competences		
Subject	:	**The learner interprets a calendar**
Language	:	**The learner reads the information on a calendar**
Methods	:	**Question and answer, Group discussion, discovery**
Content	:	**Interpreting a calendar**

Interpreting a calendar

Examples

Study the calendar below and answer the questions that follow

JANUARY						
SUN	MON	TUE	WED	THUR	FRI	SAT
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

1. Which day is the 14th of this month?
   The 14th of this month is a Tuesday.

2. John will visit his grandparents on the 3rd Sunday of the months. Which date will it be?
   It will be on the 19th

3. How many Mondays are in this month?
   4 Mondays.

4. Which day is the 31st of this month?
   The 31st of this month is a Friday.

5. Which date is the 2nd Saturday of this month?
   It is 11th

Activity
Study the calendar below and answer the questions that follow

JULY						
SUN	MON	TUE	WED	THUR	FRI	SAT
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

1. What is the first day of this month?
2. When is 20th of this month?
3. How many Thursdays are in this month?
4. Which date is the 4th Sunday of this month?
5. How many days make up this month?
6. How many full weeks make up this month?

Evaluations

Theme   :   Measurements
Topic   :   Time
Subtopic   :   Leap and Ordinary year
Competences
Subject   :   The learner determines leap and ordinary year
Language   :   The learner describes how to know the leap or ordinary year
Methods   :   Guided discovery and group discussion
Content   :   Leap and ordinary year

Leap and ordinary year
An ordinary year has 365 days
A leap year has 366 days

Note:
1. We can tell which year is an ordinary or leap year by dividing the given year by 4 because a leap year appears every after 4 years.

2. An ordinary year gives a remainder when divided by 4.

3. A leap year does not give a remainder when divided by 4.

Examples
1. Which of these years are leap years?
    a) 1964
    b) 1975
    c) 1996
    d) 1956
    e) 1945

$$
\begin{array}{r}
1964 \quad = \quad \underline{0\ 4\ 9\ 1} \\
4\overline{)1\ 9\ 6\ 4}
\end{array}
$$

$0 \times 4 = \quad \underline{0} \downarrow$
$\qquad\qquad 1\ 9$
$4 \times 4 = -\underline{1\ 6} \downarrow$
$\qquad\qquad\ \ 3\ 6$
$9 \times 4 = \quad -\ \underline{3\ 6} \downarrow$
$\qquad\qquad\ 0\ 0\ 4$
$1 \times 4 = \quad -\qquad \underline{4}$
$\qquad\qquad\qquad 0$

Therefore 1964 was a leap year.

$$
\begin{array}{r}
1975 \quad = \quad \underline{0\ 4\ 9\ 3}\ \text{rem 3} \\
4\overline{)1\ 9\ 7\ 5}
\end{array}
$$

$0 \times 4 = \quad \underline{0} \downarrow$
$\qquad\qquad 1\ 9$
$4 \times 4 = -\underline{1\ 6} \downarrow$
$\qquad\qquad\ \ 3\ 7$
$9 \times 4 = \quad -\ \underline{3\ 7} \downarrow$
$\qquad\qquad\ 0\ 1\ 5$
$3 \times 4 = \quad -\qquad \underline{1\ 2}$
$\qquad\qquad\qquad 3$

Therefore 1975 was an ordinary year.

```
1996  =    0 4 9 9                      1956  =    0 4 8 9
          4 ⌐1 9 9 6                             4 ⌐1 9 5 6

0 x 4 =    0↓                           0 x 4 =    0↓
           1 9                                     1 9
4 x 4 = -1 6↓                           4 x 4 = -1 6↓
            3 9                                      3 5
9 x 4 =  -  3 6↓                        8 x 4 =  -  3 2↓
             3 6                                     3 6
9 x 4 =  -   3 6                        9 x 4 =  -   3 6
             0 0                                     0 0
```

Therefore 1996 was a leap year.   **Therefore 1956 was a leap year.**

```
1945   =    0 4 8 6 rem 1
           4 ⌐1 9 4 5

0 x 4 =    0↓
           1 9
4 x 4 = -1 6↓
            3 4
8 x 4 =  -  3 2↓
             2 5
6 x 4 =  -   2 4
             0 1
```

Therefore 1945 was an ordinary year.

Activity
Write "Leap year" or Ordiary year" after calculation
1. **1971**
2. **1944**
3. **2000**
4. **1936**
5. **1986**
6. **1999**
7. **1988**
8. **1954**

Theme	**:**	**Measurements**
Topic	**:**	**Length, mass and capacity**
Subtopic	**:**	**Changing metres to centimeters**
Competences		
Subject	**:**	**The learner changes metres to centimeters**
Language	**:**	**The learner spells and reads words correctly**
Methods	**:**	**Group discussion and guided discovery**
Content	**:**	**Changing metres to centimeters**

Changing metres to centimeters

1m = 100cm

Examples

Change the following metres to centimeters

3m

1m = 100cm

3m = (3 x 100)cm

3m = 300cm

Therefore 3m = 300cm

3m + 2m + 2m

7m

1m = 100cm

7m = 7 x 100cm

7m = 700cm

(2 x 3)m

6m

1m = 100cm

6m = 6 x100cm

=600cm

Therefore (2x3)m = 600cm

25 metres

1m = 100cm

25m = (25 x 100)cm

25m = 2500cm

5.5m

1m = 100cm

5.5m ($\dfrac{55}{1\cancel{0}}$ x 10$\cancel{0}$) cm

5.5m = 55 x 10cm

= 550cm

Therefore 5.5m = 550cm

Activity

1. Change the following
   (a) 4metres
   (b) 27metres
   (c) 14metres
   (d) 18metres

(e) 6metres
2. Complete the table below.

m	2	5	10	8
cm	_____	_____	_____	_____

Theme   : Measurements
Topic   : length, mass and capacity
Subtopic   : changing centimeters to metres
Competences
Subject   :the learner changes cm to m
Language   : The learner describes how to change cm to m
Methods   : Question and answer and group discussion.
Content   : Changing centimeters to metres

CHANGING CENTIMETRES TO METRES
Example
change the following to metres

1. **200cm**
   100cm = 1cm
   $200cm = (\frac{2\cancel{00}}{1\cancel{00}})$ **m**

   = 2m
   :. **200cm = 2m**

2. **8000cm to metres**
   100cm = 1m
   $8000cm = (\frac{80\cancel{00}cm}{1\cancel{00}})$**m**
         = 80
   :. **8000cm = 80m**

3. **98000cm**
   100cm = 1m
   $9800cm = (\frac{98\cancel{00}}{1\cancel{00}})$ **m**
         = 98m
   :. **9800cm = 98m**

4. **300cm.**
   100cm = 1m
   $300cm = (\frac{300}{100})$ **m**
         = 3m
   :. **300cm = 3m**

Activity
change the following to metres
1. **500cm**
2. **700cm**
3. **800cm**

4. 400cm
5. 900cm
6. 600cm
7. 2300cm
8. 5300cm
9. 7400cm
10.   2900

Theme   : Measurements
Topic   : Length, mass and capacity
Subtopic   : Converting kilometers to metres
Competences
Subject   : The learner converts km to m
Language : The learner reads sentences correctly
Methods   : Group discussion and guided discovery
Content   : converting kilometers to metres

CONVERTING KILOMETRES TO METRES
1km = 1000m
example
change the following km to metres

1. 5km
   1km = 1000m
   5km = (5 x 1000) m
   5km = 5000m

2. 12km
   1km = 1000m
   12km = (12 x 1000) m
   :. 12km = 12000m

3. $3\frac{1}{2}$ km
   1km = 1000m
   $3\frac{1}{2}$ km = ($\frac{7}{2}$ x 1~~000~~ ^{500}) m
   = 7 x500m
   3500m
   :. $3\frac{1}{2}$ km = 3500m

4. Abdul covered 7km while running. What distance did he run in metres?
   1km = 1000m
   7km = (7x 1000) m
   = 7000m
   7km = 7000m
   :. He ran for 7000m.

activity
1. Change the following kilometers to metres.
   (a) 4km
   (b) 8km 550m
   (c) 16km
   (d) 19km
   (e) 24km

2. Busega is 10km from Kampala. What is the distance in metres?
3. A cyclist covered a distance of 15km. what is the distance in metres?

example 5
change 3km 650m to km
1km = 1000m
3km = 3 x1000m
   = 3000m
3km 650m = 3000m
         _+ 650m_
          3650m

:. 3km 650m = 3650m

Theme   : Measurements
Topic   : Length, mass and capacity
Subtopic   : Changing metres to kilometres
Competences
Subject   : The learner changes m to km.
Language   : The learner describes how to change.
Methods   : Group discussion, guided discovery
Content   : Changing metres to kilometers

CHANGING METRES TO KILOMETRES
example
change the following metres to kilometers
1. 4000m
   1000m = 1km
   4000m = ($\frac{4000}{1000}$) km
:. 4000m = 4km

2. 10,000m.
   1000m = 1km
   10,000m = ($\frac{10,000}{1000}$) km
   10,000m = 10km
Therefore 10,000m = 10km

3. A pupil cycles 16500m to school. How many km are these?
   1000m = 1km
   16500m = 16500 km
            ̶1̶0̶0̶0̶

   Therefore , a pupil cycles 16.5km to school

4. A bus travelled a distance of 20,000 metres. What distance did it travel in kilometers?
   1000m = 1km
   20,000m = 20000 km
             ̶1̶0̶0̶0̶
   20,000m = 20km

   Therefore, a bus travelled a distance of 20km

   Activity
   Change the following metres to kilometres
   1. 5000m
   2. 1500m
   3. 30,000m
   4. 6400m
   5. 25000m
   6. The distance from Kampala to Entebbe is 35000m. Change the distance to metres.
   7. Komugisha has a string of length 11000m. How many kilometres is the string?

Evaluation

Theme	:	Measurements
Topic	:	Length, mass and capacity
Subtopic	:	Addition of metres and centimeters
Competences		
Subject	:	The learner adds metres and centimeter
Language	:	The learner reads sentences propertly
Methods	:	Question and answer, discussion
Content	:	Addition of metres and centimetres

Addition of metres and centmetres

Examples
   1. Add:

M	CM
2	45
+ 6	36
8	81

   4 5
   + 3 6
   8 1

   2 + 6 = 8

2. Add:

M	CM			
8	25	2 5		110cm = 1m 10cm
+ 6	85	+ 5 5		
15	1 0	110		

_____

3. Namusoke had 8m 55m of cloth. She later bought 10m 85cm of cloth. Find the total length of cloth she has now.

4. Odyeke has 13m 82cm of wire. His friend has 18m 36cm of wire. What is the total length of both wires?

M	CM			
13	82	82		1m 18cm
+ 18	36	+ 36		
32	18	118		

_____

Odyeke has 32m   18m

Activity

Add the following metres and centimetres

1.

M	CM
5	25
+ 3	15

_____

2.

M	CM
4	75
+ 3	95

_____

3.

M	CM
18	35
+ 22	65

_____

4.

M	CM
8	50
+ 6	30

_____

5. Sozi bought 15m 55cm of cloth on Monday 9m 65cm on Wednesday. What is the total length of the cloth?

6. Atim had 4m 75cm of a tape, Sarah had 3m 65cm. What is the total length of the tape?

Evaluation

Theme	:	Measurements
Topic	:	Length, Mass and Capacity
Subtopic	:	Subtraaction of metres and centimetres
Competences		
Subject	:	The learner subtracts m and cm
Language	:	The learner reads and writes words correctly
Methods	:	Guided discovery and discussion
Content	:	Subtracting of metres and centimetres

Subtraction of metres and centimetres
Examples
Subtract the following

1.

M	CM
6	80
- 2	60
4	20

_____

2.

M	CM
9	24
- 5	30
3	94

100	124
+ 24	- 30
124	94

_____

49

3.

M	CM
10	15
- 6	30
3	85

```
  100
+  15
  115
-  30
   85
```

4. Otim has a ribbon measuring 15m 36cm. He cut off 9m 21cm. What length remained?

M	CM
15	36
- 9	21
4	15

```
  3 6
-  2 1
   15
```

15 – 9 = 6

Activity
Subtract the following

1.

M	CM
7	30
- 2	10

2.

M	CM
20	60
- 13	80

3.

M	CM
8	50
- 6	30

4.

M	CM
18	30
- 8	40

5.

M	CM
28	10
- 18	40
_____	_____

6.

M	CM
10	15
- 6	85
_____	_____

7. An electric wire is 25m   25cm long. 1m   30cm is cut off. What length of wire is left?

8. Subtract 3m   75cm from 11m 20cm.

Evaluation

Theme   :   Measurements
Topic   :   Length, Mass and capacity
Subtopic   :   Addition of km and m
<u>Competences</u>
Subject   :   The learner adds km and m
Language   :   The learner reads sentences correctly
Methods   :   Group discussion and guided discovery
Content   :   Addition of km and m

Addition of kilometres and metres
Examples
Add the following kilometres and metres
   1.

KM	CM			
15	880	880	1km	630m
+ 6	750	+ 750		
		1630		
22	630			

   2.

KM	CM			
13	530	530	1km	200m
+ 8	670	+ 670		
		1200		
22	200			

3. It is 4km 250m from Bwaise to Mpererwe and 5km 650m from Mpererwe to Gayaza. Find
    the total distance from Bwaise to Gayaza.

KM	CM
76	300
+ 76	200
152	500

 The distance 152km 500m

Activity
Add the following kilometres and metres
1.

KM	CM
253	650
+ 427	247

2.

KM	CM
58	460
+ 17	780

3.

KM	CM
9	350
+ 6	790

4. It is 15km 500m from Kampala to Kajjansi and 9km 870m from Kajjansi to Katabi. Find
    the distance from Kampala to Katabi

Theme   :   Measurements
Topic   :   Lengths, Mass and Capacity
Subtopic   :   Subtraction of km and m
Competences
Subject   :   The learner subtracts km and m.
Language   :   The learner writes examples
Methods   :   Questions and answer, Guided discovery
Content   :   Subtraction of kilometres and metres.

Subtraction of kilometres and metres
Examples
Subtract the following

1.

KM	CM
9	530
- 2	320
7	210

2.

KM	CM
46	260
- 12	370
33	890

$$1000 \qquad 4\,5$$
$$+\ 260 \qquad -1\,2$$
$$1260 \qquad 33$$
$$-370$$
$$890$$

3. Subtract 12km 680m from 27km 240m

KM	CM
27	240
- 12	680
33	560

$$1000 \qquad 2\,6$$
$$+\ 240 \qquad -1\,2$$
$$1240 \qquad 1\,4$$
$$-680$$
$$560$$

4. After covering a certain number of kilometres. Dorah has 18km 126m left out of 39km 200m. What part of the journey has Dorah covered?

KM	CM
39	200
- 18	126
21	74

                21km   74m

Activity
Subtract the following

1.

KM	CM
47	170
- 23	280

2.

KM	CM
420	170
- 373	780

3.

KM	CM
90	55
- 35	85

4.

KM	CM
650	150
- 465	850

5. Subtract 2km   380m from 11km 870m

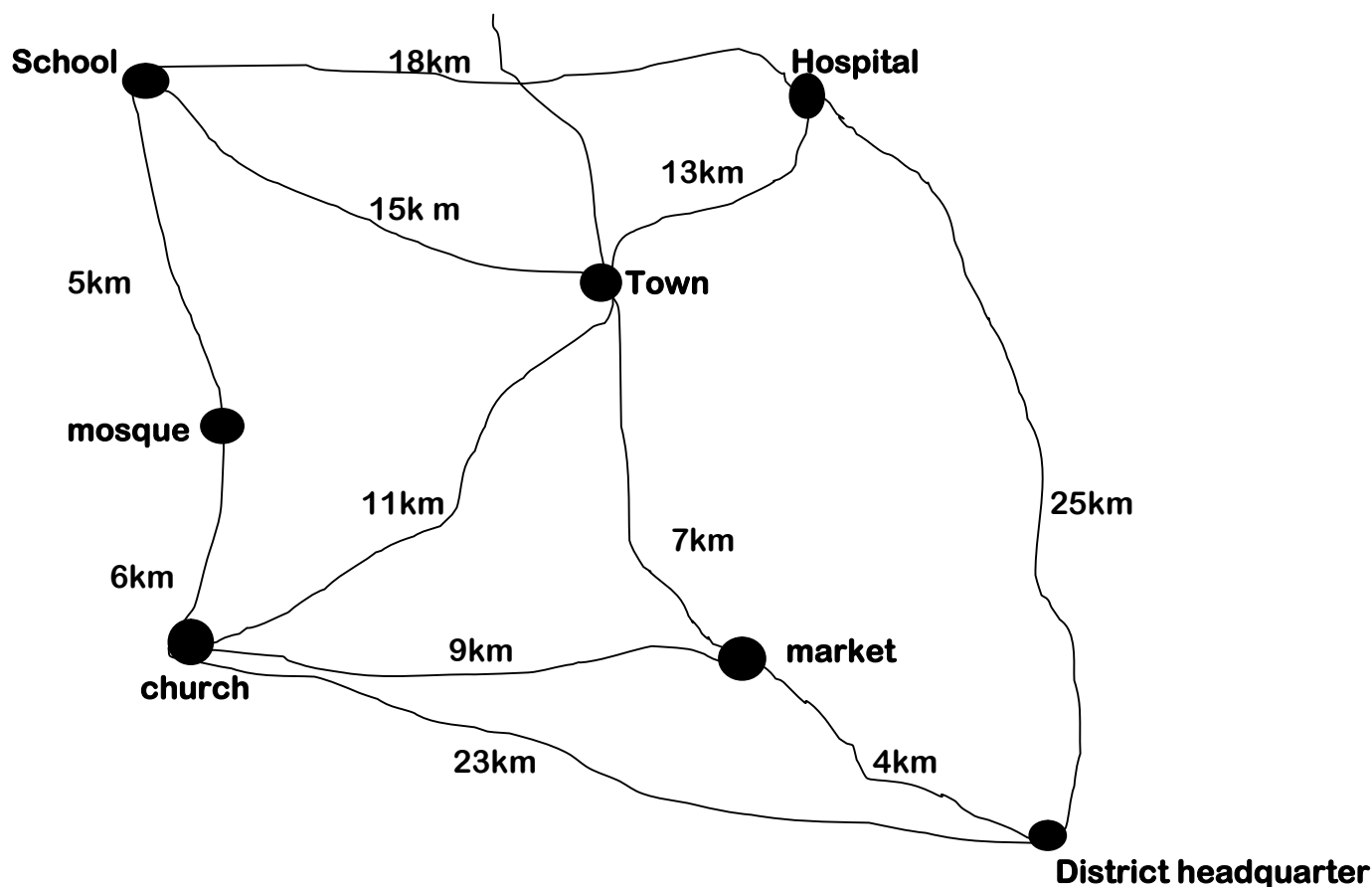6. A man travelled a total distance of 28km 400m by bus and on foot. If he travelled 7km 250m on foot. What distance did he travel by bus?

7. Subtract 15km 680m from 23km 750m

Theme   :   Measurements
Topic   :   Length, Mass and Capacity
Subtopic :   Addition of long distance
<u>Competences</u>
Subject   :   The learner adds long distance
Language :   The learner describes the regions
Methods   :   Guided discussion and brainstorming
Content   :   Addition of long distances

Addition of long distance
Example
Study the map below and use it to answer questions that follow

School   18km   Hospital

13km

15k m

5km   Town

mosque

11km   25km

7km

6km

9km   market

church

23km   4km

District headquarter

1. How far is the school from the market passing by the church and mosque?
    <u>The school is 20km from the market.</u>

2. How far is the church from the Hospital via District headquarter?
    25km + 23km = 48km
    <u>The church is 48km far from the Hospital via district headquarters</u>

3. How far is the market from the Hospital through the town
    13km + 7km = 20km
    <u>The market is 20km from the hospital through the town</u>

4. How far is the church from the hospital via town?
13km + 11km = 24km
<u>The church is 24km from the Hospital via town</u>

5. John moved from school, passing to the Hospital and continued to the district headquarters. What distance did he cover?
18km + 25km = 43km
<u>He covered 43km</u>

<u>Activity</u>
Study the map below and answer the questions that follow.
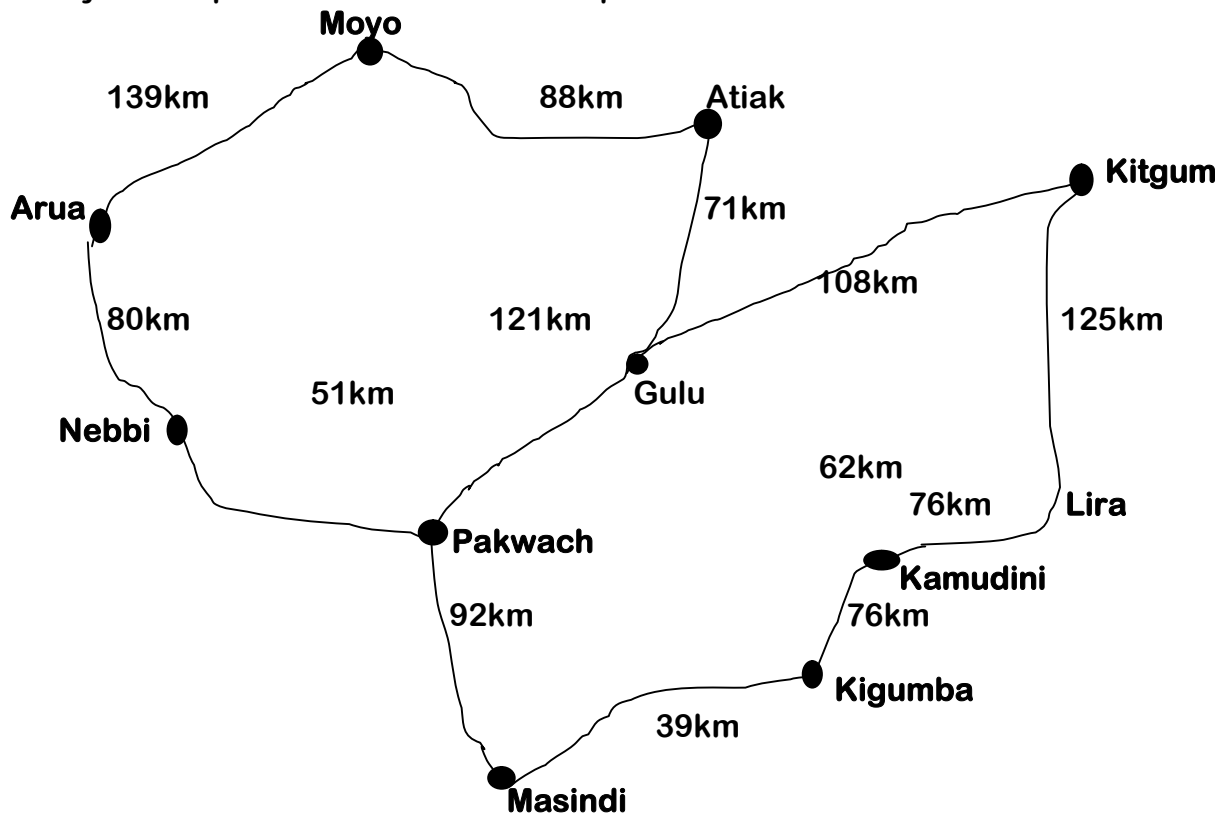
1. How far is Moyo from Nebbi through Arua?
2. How far is Gulu from Masindi through Kigumba?
3. How fair is pakwach from Moyo through Atiak?
4. How far is Kitgum from Kigumba through Lira?
5. How far is Lira from Masindi through Kigumba?
6. How far is Kigumba from Kitgum through Gulu and Kamudini?

Theme   :   Measurements
Topic   :   Length, Mass and Capacity
Subtopic   :   Changing kilogrammes to grammes
<u>Competences</u>
Subject   :   The learner changes kg to g.
Language   :   The learner reads and spells words
Methods   :   Group discussion and guided discovery
Content   :   Changing kilogrammes to grammes

Changing kilogrammes to grammes

1kg = 1000g

Examples
Change the following kg to g
7kg
1kg = 1000g
7kg = 7 x 1000g
<u>Therefore 7kg = 7000g</u>

21kg
1kg = 1000g
21kg = 21 x 1000g
= 21000g
<u>Therefore 21kg = 21000g</u>

4 ½ kg
1kg = 1000g   9x500g

4 ½ kg = $\frac{9}{2}$ x 1̶0̶0̶0̶^{500}g   4500g

9x 500g   <u>Therefore 4 ½ kg = 4500g</u>

4kg = 600g
1kg = 1000g
4kg = 4 x 1000g
= 4000g
4kg   600g = 6000g + 600g = 4600g
<u>Therefore 600g = 4600g</u>

Activity
Change the following kg to g
1. 5kg
2. 8kg
3. 12kg
4. $\frac{3}{4}$ kg
5. 5 ½ kg
6. 10kg
7. 11kg
8. 9kg
9. 5 ¼ kg

Evaluation

Theme	:	Measurements
Topic	:	Length, Mass and Capacity
Subtopic	:	Changing grammes to kilogrammes

Competences

Subject	:	The learner changes g to kg
Language	:	The learner reads words correctly
Methods	:	Guided discovery and group discussion
Content	:	Changing grammes to kilogrammes

Changing grammes to kilogrammes

Examples
Change the following grammes to kilogrammes

2000g
1000g = 1kg
$2000g = \dfrac{2000}{1000}$ kg

= 2kg
<u>Therefore 2000g = 2kg</u>

4500g
1000g = 1kg
$4500g = \dfrac{4500}{1000}$ kg

= 4.5kg
<u>Therefore 4500g = 4.5kg</u>

29000g
1000g = 1kg
$29900g = \dfrac{29000}{1000}$ kg

= 29kg
<u>Therefore 29000g = 29kg</u>

7500g
1000g = 1kg

7500g = $\frac{7500}{1000}$ kg

= 7.5kg
Therefore 7500g = 7.5kg

Activity
Change the following grammes to kilogrammes
1. 6000g
2. 8000g
3. 12000g
4. 10000g
5. 1500g
6. 35000g
7. 3500g
8. 16000g
9. 45000g
10. 70000

Evaluation

Theme	:	Measurements
Topic	:	Length, Mass and Capacity
Subtopic	:	Addition of kilograms and grams

Competences
Subject	:	The learner adds kg and g
Language	:	The learner writes correctly
Methods	:	Question and answer , Group discussion
Content	:	Addition of kilograms and grams

Addition of kilograms and grams

Examples
Add the following kg and g
1.

KM	g
2	250
+ 4	550
6	800

    250
+ 550
  800

2.

KM	g			
10	640	640		1kg and 400g
+ 5	760	+ 760		
		1400		
16	400			

3. Tereza's father weighs 53kg 550 and his mother weighs 46kg 850g. Find their total weight.

KM	g			
53	550	550		
+ 46	850	+ 850		100kg and 400g
		1400		
100	400			

4. A farmer took 2 sacks of coffee to the store for sell. One weighs 96kg 480g and other 88kg 776g. Find the total weight of the two bags.

KM	g			
96	480	480		
+ 88	776	+ 770		1kg and 256g
		1256		
185	256			

<u>Therefore - total weight is 185kg 256g</u>

Activity
Add the following kilograms and grams

KM	g
24	410
+ 58	260

KM	g
72	640
+ 59	374

KM	g
13	240
+ 41	300

```
        KM              g
        96             145
   +    56             874
        _____
```

5. Abel had 535kg 50g of salt, he got 4kg 60g more. How much salt has she got altogether?
6. Add: 136kg   268g to 98kg   75g

Evaluation

Theme   :   **Measurements**
Topic   :   **Length, Mass and Capacity**
Subtopic   :   **Subtract of kg and g**
Competences
Subject   :   **The learner subtracts kg and g**
Language   :   **The learner writes sentences correctly**
Methods   :   **Questions and answer, group discussion**
Content   :   **Subtraction of kg and g**

Subtraction of kilograms and grams
Examples

```
        Kg              g
        75             640
   -    28             450
        47             190
        _____
```

```
        Kg              g
        10             750
   -     4             340

         6             410
```

```
        Kg              g          1000          1423          5 8
        59             423        +423        -   651         -3 9
   -    39             651        1423            772          1 9

        19             772
        _____
```

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	Kg	g	1000	366	8 0
	81	366	+366	- 424	-3 3
-	33	424	1366	942	4 7
	47	942			

Nakato had 40kg 350g of ghee. She sold 26kg 850 of it. how much ghee did she remain with?

	Kg	g	1000	1350	39
	40	350	+350	- 850	-26
-	26	850	1350	500	1 3
	19	772			

Activity
Subtract the following kg and g

	Kg	g
	94	830
-	85	110

	Kg	g
	72	820
-	31	410

	Kg	g
	42	340
-	31	760

	Kg	g
	78	355
-	24	805

6. Apollo had 38kg 360g of tea. He gave a way 17kg 520g of it. How much tea remained?
7. Subtract 41kg 500g from 76kg 130g.

Theme   :   Measurements
Topic   :   Length, mass and capacity
Subtopic   :   Multiplication of kg and g

Competences
Subject   :   The learner multiplies kg and g.
Language   :   The learner reads sentences correctly
Methods   :   Question and answer, group discussion
Content   :   Multiplication of kg and g

Multiplication of kilograms and grams

Examples

Multiply the following kg and g

Kg	g
32	120
x	9
289	80

120	1kg	80g
x 9	3	2
1080	x	9
	288	
	+ 289	

Kg	g
4	130
x	3
12	930

310	4 x 3 = 12
x 3	
930	

Kg	g
45	39
x	5
225	195

3 9	4 5
x 5	x 5
195	225

Kg	g
9	550
x	9
85	950

550	9 x 9 = 81
x 9	+ 4
4950	85
4kg 950g	

Activity
Multiply the following

Kg	g
14	150
x	5

Kg	g
27	375
x	4

Kg	g
8	450
x	2

Kg	g
19	170
x	4

Kg	g
34	89
x	2

Kg	g
134	189
x	2

Kg	g
10	350
x	2

```
          Kg            g
          483          830
    x                    5
          _____
          _____
```

Appreciation

Theme	:	Measurements
Topic	:	Length, Mass and Capacity
Subtopic	:	Half and quarter litres

Competences

Subject	:	The learner finds different parts of quantities
Language	:	The learner reads and spells words
Methods	:	Guided discovery and group discussion
Content	:	Half and quarter litres

Half and quarter litres
Note
1 litre = 2 half litres
2 litres = 4 half litres
3 litres = 6 half litres
1 litre = 4 quarter litres

Examples
1. How many ½ litre bottles are in 2 litre container?

  = 4 half litre bottles

Or:
1 litre = 2 half litres
2 litres = (2 x 2) half litres
= 4 half litres

Therefore, 4 half litres bottles are in 2 litres

2. How many ¼ litre bottles are in 5 litres container?
1 litre = 4 half litres
5 litres = (4 x 5) quarter litres
= 20 quarter litres

Therefore, 20 quarter litres are in 5 litre bottles

3. Divide 3 litres of milk into ½ litres
1 litre = 2 half litres
3 litres = (3 x 2) half litres
3litres = 6 half litres
= 3litres = 6 half litres

4. Namuddu has 6 litres. How many ½ litres has she got?
    1 litre = 2 half litres
    6 litres = (2 x 6) half litres
    = 12 half litres
    Therefore , Namuddu has 12 half litres

Activity
1. How many ¼ litres are in 2 litres?
2. How many ½ litre bottles are in 5 litre container?
3. How many ¼ litre bottles are in 4 litres?
4. Joan has 10 litres of milk. How many ½ litres has shs got?
5. Opolot has 8 litres of water. How many quarters does he have?

Theme   :   Measurements
Topic   :   Length, Mass and Capacity
Subtopic   :   Changing litres to milliliters
Competences
Subject   :   The learner changes I to ml.
Language   :   The learner spells words correctly
Methods   :   Group discussion, guided discovery
Content   :   Changing litres to milliliters

Changing litres to milliliters
1 litre = 1000 mililitres

Examples
Change the following litres to mililitres
1. 2 litres
    1 litre = 1000 millilitres
    2 litres = (2 x 1000) milliliters
             = 2000 millilitres
    Therefore, 2 litres = 2000 millilitres

2. 9 litres
    1 litre = 1000 millilitres
    9 litres = (9 x 1000) milliliters
             = 9000 millilitres
    Therefore, 9 litres = 9000 millilitres

3. 26 litres
    1 litre = 1000 millilitres
    26 litres = (2 6x 1000) milliliters
              = 26000 millilitres
    Therefore, 26 litres = 26000 millilitres

4. 3 ½ litres
   1 litre = 1000 millilitres

   3 ½ litres = ($\frac{7}{2}$ x $\cancel{1000}^{500}$) milliliters

   = 7 x 500 millilitres
   =3500 millilitres
   <u>Therefore, 3 ½ litres = 3500 millilitres</u>

5. 2 ½ litres
   1 litre = 1000 millilitres

   2 ½ litres = ($\frac{5}{2}$ x $\cancel{1000}^{500}$) milliliters

   = 5 x 500 millilitres
   =2500 millilitres
   <u>Therefore, 2 ½ litres = 2500 millilitres</u>

Activity
Change the following to milliliters
   1. 5 litres
   2. 4 litres
   3. 11 litres
   4. 17 litres
   5. 7 ½ litres
   6. 8 litres
   7. 33 litres
   8. 10 litres

Theme   :   **Measurments**
Topic   :   **Length, Mass and Capacity**
Subtopic   :   **Changing milliliters to litres**
<u>Competences</u>
Subject   :   **The learner changes ml to l**
Language   :   **The learner spells words correctly**
Methods   :   **Group discussion and Brain storming**
Content   :   **changing milliliters to litres**

Changing milliliters to litres
Examples
Change the following to litres
   1. 9000ml
       1000   = 1 litre
       9000ml = $\frac{\cancel{9000}}{\cancel{1000}}$ litres

                = 9 litres
   <u>Therefore, 9000ml = 9 litres</u>

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2. 11000ml

    1000   = 1 litre

    11000ml = $\dfrac{11\,000}{1000}$ litres

             = 11 litres

Therefore, 11000mls =11 litres

3. 40ml

   1000 ml   = 1 litre

    400ml = $\dfrac{400}{1000}$ litres

Therefore, 11000mls =11 litres

$\dfrac{4}{10}$ = 0.4 litres

4. 700ml

   1000ml = 1 litre

   700ml = $\dfrac{700}{1000}$ litre

$\dfrac{7}{10}$

    = 0.7 litre

Therefore 700ml = 07 litre

Activity

Change the following to litres
1. 6000ml
2. 7000ml
3. 12000 ml
4. 10000 ml
5. 18000 ml
6. 200 ml
7. 100 ml
8. 29000 ml

Evaluation

Theme	:	Measurements
Topic	:	Length, Mass and Capacity
Subtopic	:	Addition of litres and milliliters
Competences		
Subject	:	The learner adds litres and millitres
Language	:	The learner writes properly
Methods	:	Group discussion and Guided discovery

Content   :   Addition of litres and milliteres

Addition of litres and milliliters

Examples
Add the following

```
 l          ml
 7          250
+ 2         400

 9          650
```

```
 l          ml
 10         780              780
+  2        420            + 420

 14         200             1200

                            11 and 200ml
```

A baker used 4 litres 570ml of cooking oil. She later used another 15 litres 110ml more. How 3much oil did she use?

```
 l          ml
 4          570
+ 15        110

 19         680      She used 19l  680ml of the oil
```

```
 l          ml
 16         720
+  8        250

 24         970
```

Activity
Add the following

```
 l          ml
 14         495
+  23       250

```

```
      l           ml
     15          360
  +  22          480
     _____
```

```
      l           ml
     12          570
  +   8          430
     _____
```

```
      l           ml
     19          750
  +   3          147
     _____
```

```
      l           ml
     14          360
  +   7          415
     _____
```

```
      l           ml
      9          450
  +   8          380
     _____
```

A petrol tank contains   500 litres 900ml and a diesel tank contains 250l 700ml. How much fuel is there now?

Evaluation

Theme	:	**Measurements**
Topic	:	**Length, Mass and Capacity**
Subtopic	:	**Subtraction of l and ml**
<u>Competences</u>		
Subject	:	**The learner subtracts l and ml**
Language	:	**The learner reads properly**

Methods   :   Group discussion and Guided discovery
Content   :   Subtraction of litres and milliliters

Subtraction of litres and millitres

Examples
Subtract the following

l	ml
9	200
- 3	300
5	900

```
 1000
+ 200
 1200
 -300
  900
```

l	ml
12	750
- 6	550
6	200

l	ml
28	640
- 19	780
8	860

```
 1000
+ 640
 1640
 -780
  860
```

```
 2 7
-1 9
   8
```

Activity
Subtract the following

l	ml
3	330
- 1	240

l	ml
9	670
- 2	940

l	ml
33	250
- 20	740

```
    l          ml
    7         105
 -  3         850
   _____


    l          ml
   17         850
 - 1 5        410
   _____


    l          ml
    6         340
 -  5         320
   _____
```

Theme   :   **Algebra**
Topic   :   **Equations**
Subtopic   :   **Finding unknown involving addition**
<u>**Competences**</u>
Subject   :   **The learner finds unknown**
Language   :   **The learner reads and writes the work**
Methods   :   **Guided discovery, Brain storming and group discussion**
Content   :   **Finding unknown involving addition**

Finding unknown involving addition
Examples
Find the missing numbers

$\Box$ + 3 = 9

$\Box$ + 3 – 3 = 9 – 3

$\Box$ + 0 = 6

$\Box$ = 6

$\Box$ + 23 = 47

$\Box$ + 23 – 23 = 47 – 23

$\Box$ + 0 = 24

$\Box$ = 24

$\boxed{}$ + 80 = 106

$\boxed{}$ + 80 – 80 = 106 – 80

$\boxed{}$ + 0 = 26

$\boxed{}$ = 26

6 + $\boxed{}$ = 9

6 - 6 + $\boxed{}$ = 18 – 6

0 + $\boxed{}$ = 12

$\boxed{}$ = 12

Solve the following

x + 4 = 6

x + 4 = 6

x + 4 – 4 = 6 – 4

x + 0 = 2

x = 2

P + 12 = 21

P + 12 = 21

P + 12 – 12 = 21 – 12

P + 0 = 9

P = 9

Activity

Fill in the missing numbers

a) $\boxed{}$ + 4 = 7

b) $\boxed{}$ + 8 = 10

c) $\boxed{}$ + 17 = 28

d) $\boxed{}$ + 18 = 42

e) 10 + $\boxed{}$ = 32

f) 12 + $\boxed{}$ = 28

g) $34 + \boxed{} = 62$

Solve the following equations
   a) $M + 4 = 9$
   b) $P + 6 = 13$
   c) $E + 8 = 18$

Evaluation

Theme   :   **Algebra**
Topic   :   **Equations**
Subtopic   :   **Finding the mission number in subtraction**
<u>Competences</u>
Subject   :   **The learner finds the missing number**
Language   :   **The learner writes the given work**
Methods   :   **Question and answer, group discussion**
Content   :   **Finding the missing number in subtraction**
Finding the missing numbers in subtraction
Examples
Fill in the missing number

$\boxed{}$ - $8 = 15$

$\boxed{}$ - $8 = 15$

$\boxed{}$ - $8 + 8 = 15 + 8$

$\boxed{} +$ $0 = 23$

$\boxed{}$ $= 23$

$\boxed{}$ - $27 = 12$

$\boxed{}$ - $27 = 12$

$\boxed{}$ - $27 + 27 = 12 + 27$

$\boxed{} +$ $0 = 39$

$\boxed{}$ $= 29$

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7 - ☐ = 5

7 - ☐ = 5

7 - ☐ + ☐ = 5 + ☐

7 + 0 = 5 + ☐

7 = 5 + ☐

7 − 5 = 5 − 5 + ☐

2 = 0 + ☐

2 = ☐

☐ = 2

18 - ☐ = 11

18 - ☐ = 11

18 - ☐ + ☐ = 11 + ☐

18 + 0 = 11 + ☐

18 = 11 + ☐

18 − 11 = 11 − 11 + ☐

7 = 0 + ☐

7 = ☐

☐ = 7

9 - ☐ = 6

9 - ☐ = 6

9 - ☐ + ☐ = 6 + ☐

☐

9 + 0 = 6 +

9 = 6 + ☐

9 – 6 = 6 – 6 + ☐

3 = 0 + ☐

3 = ☐

☐ = 3

Solve for P
P – 9 = 13
P – 9 = 13
P - 9 + 9 = 13 – 9
P + 0 = 4
P = 4

Activity
Fill in the missing numbers

1. ☐ – 10 = 21

2. ☐ – 22 = 30

3. ☐ – 34 = 48

4. 14 - ☐ = 8

5. 37 - ☐ = 21

6. 40 ☐ = 19

7. 78 - ☐ = 36

Solve the following
8. X – 5 = 7
9. n - 8 = 15
10. y – 28 = 51

Evaluation

Theme   :   Algebra

Topic	:	Equations
Subtopic	:	Finding missing factors (multiplication)

<u>Competences</u>

Subject	:	The learner finds missing factors
Language	:	The learner reads sentences well
Methods	:	Guided discussion and group discovery
Content	:	Finding missing factors

Finding missing factors
Examples
Fill in the missing numbers

$3 \times \square = 12$

$3\square = 12$

$$\frac{\cancel{3}\square}{\cancel{3}} = \frac{\cancel{12}^{4}}{\cancel{3}_{1}}$$

$= 4$

$4 \times \square = 20$

$4 \times \square = 20$

$4\square = 20$

$$\frac{\cancel{4}\square}{\cancel{4}} = \frac{\cancel{20}^{5}}{\cancel{4}_{1}}$$

$= 5$

$\square \times 4 = 32$

$\square \times 4 = 32$

$4\square = 32$

$$\frac{\cancel{4}\square}{\cancel{4}} = \frac{\cancel{32}^{8}}{\cancel{4}_{1}}$$

$= 8$

y x 6 = 24
y x 6 = 24
6y = 24

$$\frac{6y}{6} = \frac{24^4}{6_1}$$

y = 4

m x 3 = 9
m x 3 = 9
3m = 9

$$\frac{3m}{3} = \frac{9^3}{3_1}$$

y = 3

Activity
Fill in the missing numbers

1. 4 x ☐ = 28

2. 6 x ☐ = 30

3. 11 x ☐ = 77

4. ☐ X 8 = 40

5. ☐ X 4 = 48

6. ☐ X 10 = 90

7. ☐ X 6 = 96

Solve the following

8. n x 5 = 80

9. p x 10 = 70

10. y x 9 = 54

Evaluation

Theme   :   Algebra
Topic   :   Equations
Subtopic   :   Finding the missing number in division
<u>Competences</u>
Subject   :   The learner finds the missing numbers
Language   :   The learner reads and writes words correctly
Methods   :   Brain storming, group discussion
Content   :   Finding the missing number in division

Finding the missing number in division

Examples
Fill in the missing numbers

$\Box \div 4 = 12$

$\dfrac{\Box}{4} = 12$

$\dfrac{\Box}{\cancel{4}} \times \cancel{4}^1 = 12 \times 4$

$\Box = 48$

$\Box \div 7 = 4$

$\dfrac{\Box}{7} = 4$

$\dfrac{\Box}{\cancel{7}} \times \cancel{7}^1 = 4 \times 7$

$\Box = 28$

$$\frac{\square}{2} = 10$$

$$\frac{\square}{\cancel{2}} \times \cancel{2}^1 = 10 \times 2$$

$$\boxed{} = 20$$

$$20 \div \square = 5$$

$$\frac{20}{\square} = 5$$

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

$$4 = \square$$

Activity

1. $\boxed{} \div 5 = 30$

2. $\boxed{} \div 6 = 42$

3. $\boxed{} \div 7 = 35$

4. $\boxed{} \div 8 = 56$

5. $15 \div \boxed{} = 5$

6. $60 \div \boxed{} = 5$

7. $48 \div \boxed{} = 8$

8. $18 \div \boxed{} = 6$

Evaluation

Theme   :   Algebra
Topic   :   Equations
Subtopic   :   Collecting like terms
Competences
Subject   :   The learner collects like terms
Language   :   The learner creates simple equations
Methods   :   Brain storming
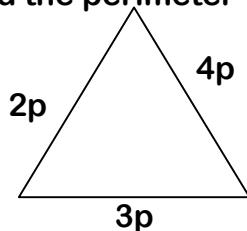Content   :   Collecting like terms

Collecting like terms

Examples

1. Add: 3b + 4b
          3b + 4b
          = 7b

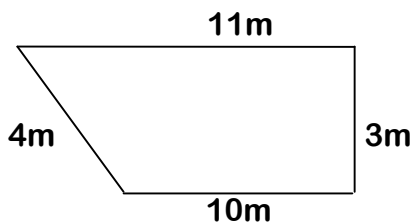2. Subtract: 7x + 8x + x
               7x + 8x + x
               = 16x

3. Find the perimeter

P = S + S + S

P = 2P + 4P + 3P

P = qp

Perimeter = qp

4. Find the perimeter

P = S + S + S +S
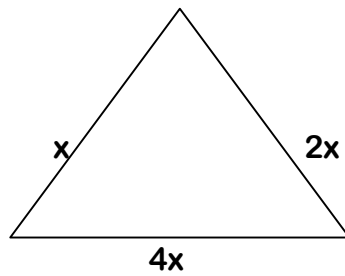
P = 11m + 10m + 3m + 4m

P = 28m

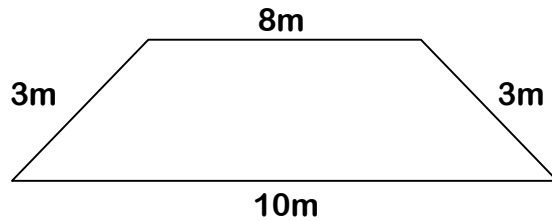Perimeter = 28m

Activity
Collect the following like terms

1. 2p + 4p
2. 89a + 8a
3. 20w + 11w
4. 17m + 13m
5. 8k + 2k
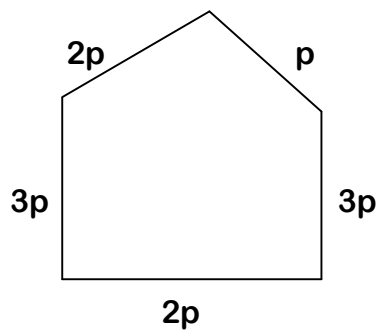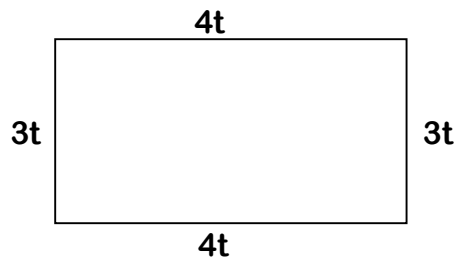6. 20d + 11d – 5d

Find the perimeter of the following

7.

x $2x$

$4x$

8.

8m

3m   3m

10m

9.

2p   p

3p   3p

2p

10.

4t

3t   3t

4t

Evaluation

Theme	:	**Algebra**
Topic	:	**Equations**
Subtopic	:	**Collecting more like terms**
Competences		
Subject	:	**The learner collects like terms**
Language	:	**The learner reads and writes the work**
Methods	:	**Group discussion and guided discovery**

Content : Collecting more like terms

Collecting more like terms
Examples
1. Collect like terms
X+Y+X+3Y+X
X+Y+X+3Y+X
X + X + X + Y + 3Y
3X + 4Y

2. Collect like terms
a + b + a + b
a + a + b + b
2a + 2b

3. Collect like terms
9c + 2p + 8c + p
9c + 2p + 8c + p
9c + 8c + 2p + p
17c + 3p

4. 4p + 3x + 2p + 8x
4p + 2p + 3x + 8x
6p + 11x

Activity
Collect the following like terms
1. 2y + x + y + y
2. A + b + 2a + b
3. 2x + y + x + y
4. B + c + b + c
5. 9y + 5x + 2y + 5x
6. 6p + 5t + 2t + 8k
7. 6x + 2y + 3x + 5y

Evaluation

Theme : Algebra
Topic : Equation
Subtopic : Substitution
Competences
Subject : The learner replaces the letter by a number
Language : The learner spells words correctly
Methods : Brain storming, discussion
Content : Substitution

Substitution
Substitution means to replace

Examples

1. If P = 3. What is the value of P + 4?
   P + 4
   3 + 4
   = 7

2. If g = 5. Find the value of 8 – g
   8 – g
   8 – 5
   = 3

3. If x = 3, y = 4, z = 5. Find the value of
   a) X + Y
      3 + 4 = 7

   b) YZ
      Y x Z
      4 x 5 = 20

   c) Z – X
      Z – X
      5 – 3 = 2

   d) 2x + 2y
      2x + 2y
      (2 x X) + (2 x Y)
      (2 x 3) + (2 x 4)
      6 + 8 = 14

   Activity
   1. If a = 2, b = 3 and c = 4. Find the value of
      i)   a + b + c
      ii)   a + b – c
      iii)   a + c – b
      iv)   ab
      v)   c + a
      vi)   c – b
      vii) $\dfrac{c}{a}$

   2. If a = 9. Find the value of 2.xa

   Evaluation

Theme   :   **Algebra**
Topic   :   **Equations**
Subtopic   :   **Forming equation and solving**
Competences
Subject   :   **The learner forms equations**
Language   :   **The learner reads the given sentences**
Methods   :   **Brain storming and guided discovery**
Content   :   **Forming and solving equations**

Forming and solving equations
Examples
1. Wamala had some books. He got 3 more books. Altogether he had 7 books. How many books did he have before?
    Let the number of books be y.
    $y + 3 = 7$
    $y + 3 - 3 = 7 - 3$
    $y + 0 = 4$
    $y = 4$
    Therefore, he had 4 books before

2. When I multiply a number by 7, I get 35. What is the number?
    Let the number be P.
    $P \times 7 = 35$
    $7P = 35$
    $\dfrac{7P}{7} = \dfrac{35}{7}^{5}$

    $P = 5$
    Therefore, the number is 7

3. I think of a number, when I add 5 to it, it becomes 8. What is the number?
    Let the number be n
    $n + 5 = 8$
    $n + 5 - 5 = 8 - 5$
    $n + 0 = 3$
    $n = 3$
    Therefore, the number is 3

    Activity
1. I think of a number, when I subtract 6 from it, it becomes 10. What is the number?

2. There were some eggs in a nest. A bird laid 5 more eggs. Altogether there were 13 eggs. How many eggs were there before?

3. When Naiga spent sh. 150. She had sh. 200 left. How much money had she before?

4. I think of a number, when it is multiplied by 2, it becomes 8. What is the number?

Evaluation