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# P.6 MATHEMATICS SELF-STUDY LESSONS SET 2

## 12.6.20

## LESSON 1

**TOPIC : NUMBER PATTERNS AND SEQUENCES**

**SUB TOPIC : REPRESENTING PRIME FACTORS ON A VENN DIAGRAM**

**COMPETENCES**

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

- Prime factorize numbers correctly.
- Represent the prime factors on a Venn diagram

**Example 1**

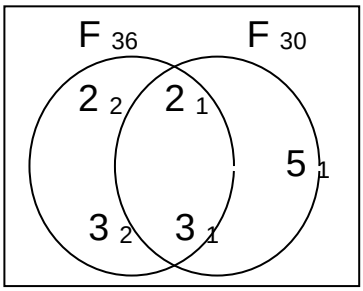
Represent the prime factors, $F_{36}$ and $F_{30}$ on a Venn diagram

| | |
|---|---|
| 2 | 36 |
| 2 | 18 |
| 3 | 9 |
| 3 | 3 |
| | 1 |

| | |
|---|---|
| 2 | 30 |
| 3 | 15 |
| 5 | 5 |
| | 1 |

$F_{30}=\{2_1, 3_1, 5_1\}$ $F_{36} = \{2_1, 2$

C.P.F=$\{2_1,3_1\}$




- Prime factorize 36 and 30 as shown.
- List the prime factors in set notation.
- Drawn a Venn diagram.
- First identify common factors to be put in the intersection.
- Write the remaining prime factors in their respective regions

Activity

Draw Venn diagrams to represent the prime factors for the following

1. 24 and 30
2. 30 and 48
3. 18 and 40
4. 48 and 60
5. 15 and 20
6. 36 and 54

**LESSON 2**

**TOPIC : NUMBER PATTERNS AND SEQUENCES**

**SUB TOPIC : FINDING THE GCF AND LCM USING A VENN DIAGRAM**

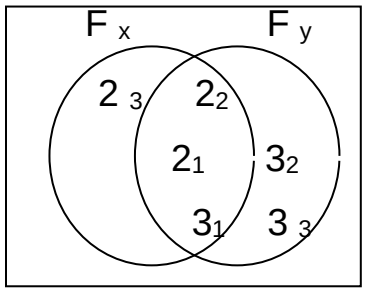
**COMPETENCES**

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

- Find the greatest common factors (GCF) using a Venn diagram.
- Find the lowest common factors (LCM) using a Venn diagram.
- Calculate the values of the unknowns used.

**CONTENT : FINDING THE GCF AND LCM USING A VENN DIAGRAM**

Study the Venn diagram and use it to answer questions that follow




- **To get the value of x, multiply all the prime factors of x.**
- **To get the value of y, multiply all the factors of y.**
- **To get the GCF, multiply all the common factors. (the factors in the intersection)**
- **To get the LCM, multiply all the factors in the union.**

a) Find the value of x

$F_x = \{2_1, 2_2, 2_3, 3_1\}$

$F_x = 2 \times 2 \times 2 \times 3$

$F_x = 8 \times 3$

$F_x = 24$

b) Find the value of y:

Fy = 2x2x3x3x3

= 12x9

= 108

c) Find the GCF of x and y
G.C.F of x and y = $F_x \cap F_y$

$=2_1 \times 2_2 \times 3_1$

$=2 \times 2 \times 3$

$= 4 \times 3$

$= 12$

d) Find the LCM of x and y
LCM of x and y
L C M = $F_x \cup F_y$

$=2_1x2_2x2_3x3_1x3_2x3_3$

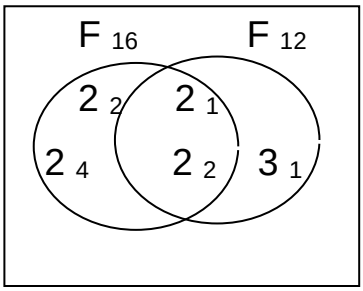
$=2 \times 2 \times 2 \times 3 \times 3 \times 3$

$= 8 \times 27$

$= 216$

**Activity**

1. Study the Venn diagram below and use it to answer the questions that follow.




Find;

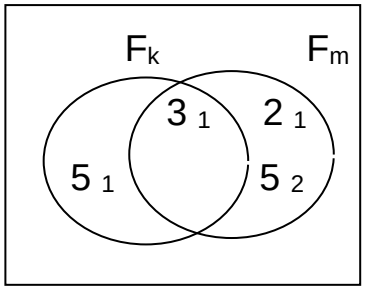
i) $F1_6 \cap F_{12}$

ii) The GCF of 16 and 12

iii) $F_{16} \cup F_{12}$

iv) The LCM of 16 and 12

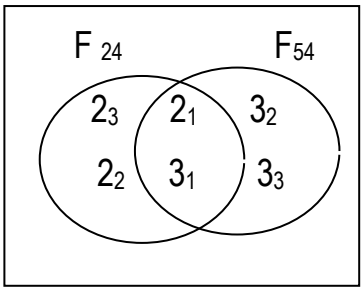
2.




Find:

a) $F_k \cap F_m$
b) GCF of $F_k$ and $F_m$
c) $F_k \cup F_m$
d) LCM of $F_k$ and $F_m$

3.




Find;

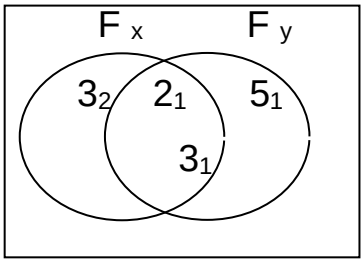
i) $F_{24} \cap F_{54}$

ii) The GCF of 24 and 54

iii) $F_{24} \cup F_{54}$

iv) The LCM of 24 and 54

4.




i) Find the value of x

ii) Find the value of y

iii) Find the GCF of x and y

iv) Find the LCM of x and y

**LESSON 3**

**TOPIC : NUMBER PATTERNS AND SEQUENCES**

**SUB TOPIC : SQUARES AND SQUARE ROOTS**

**CONTENT : SQUARES AND SQUARE ROOTS**

**COMPETENCES**

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

- Identify square numbers
- Prime factorize correctly
- Find the square root of a given number

## SQUARES AND SQUARE ROOTS

- A square number is a number obtained after multiplying any counting number by itself.
- A square root is a number which is multiplied by itself to give a square number.

**Example 1**

Find the square of 25

$(25)^2 = 25 \times 25$

```
   2   5
 X 2   5
-------
 1   2   5
+5   0
-------
 6   2   5
```

**Example II**

Find the square root of 81

$\sqrt{81}$

| | |
|---|---|
| 3 | 81 |
| 3 | 27 |
| 3 | 9 |
| 3 | 3 |
| | 1 |

$\sqrt{81} = \sqrt{(3 \times 3) \times (3 \times 3)}$

$= 3 \times 3$

$\sqrt{81} = 9$

- prime factorize the given number.
- pair the prime factors and pick one from each pair.
- multiply the factors picked to get the square root.

**Activity**

**A.** Find the square of each of the following numbers:-

1. 8
2. 16
3. 27
4. 11
5. 20
6. 100

B. Find the square root of the following

1. 36
2. 144
3. 484
4. 625
5. 324
6. 576

**LESSON 4**

**TOPIC : NUMBER PATTERNS AND SEQUENCES**

**SUB TOPIC : SQUARES AND SQUARE ROOTS OF FRACTIONS**

**Content : Finding squares and square roots of fractions**

**COMPETENCES**

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

- Identify the type of the fraction correctly.
- Find the square of a given fraction
- Find the square root of a given fraction

Finding Squares and square roots of fractions

- When given a common fraction, the result must remain a common fraction.
- when given a mixed number, the answer must be presented as a mixed number.

**Example 1**

a) Find the square of ½

( ½ ) $^2$

$\frac{1x1}{2x2}$

$\frac{1}{4}$

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

$(1\frac{1}{5})^2$

$(\frac{5x1+1}{5})^2$

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

$(\frac{6}{5})^2$

$\frac{6}{5}$ X $\frac{6}{5}$

$\frac{6x6}{5x5}$

$\frac{36}{25}$

$1\frac{11}{25}$

**Example II**
Find the square root of;

a) $\sqrt{\frac{36}{81}}$

Prime factorize 36 and 81

36

| | |
|---|---|
| 2 | 36 |
| 2 | 18 |
| 3 | 9 |
| 3 | 3 |
| | 1 |

| | |
|---|---|
| 3 | 81 |
| 3 | 27 |
| 3 | 9 |
| 3 | 3 |
| | |

$$= \sqrt{\frac{2x2x3x3}{3x3x3x3}}^{1}$$

$$= \frac{2x3}{3x3} = \frac{6}{9}$$

since the given question was not in its simplest form, you should not reduce the answer to the its simplest form.

b) $\sqrt{6\frac{1}{4}}$

$= \sqrt{\frac{25}{4}}$

| | |
|---|---|
| 5 | 25 |
| 5 | 5 |
| | |

$= \sqrt{\frac{5x5}{2x2}}$

| | |
|---|---|
| 2 | 4 |
| 2 | 2 |
| | 1 |

$= \frac{5}{2}$

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

*A question in mixed fraction requires an answer in mixed fraction.

**Activity**

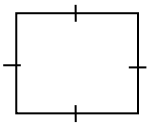
Find the squares of each of the following

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

b) $\frac{4}{5}$

c) $\frac{3}{8}$

d) $1\frac{2}{3}$

e) $\frac{1}{2}$ cm  Find the area of the square.

f) Work out $7\frac{1}{2}$ x $7\frac{1}{2}$

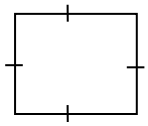
Find the square root of;

g) $\frac{1}{4}$

h) $\frac{9}{16}$

i) $3\frac{6}{25}$

j) $2\frac{46}{49}$

 x Find the value of x if the area is 256cm$^2$

**LESSON 5**

**TOPIC : NUMBER PATTERNS AND SEQUENCES**

**SUB TOPIC : SQUARE AND SQUARE ROOTS OF DECIMALS**

**CONTENT : FINDING SQUARES AND SQUARE ROOTS OF DECIMALS**

**COMPETENCES**

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

- Identify the fraction
- Find squares of decimals
- Find square roots of decimals

**Finding squares and square roots of decimals**

- Multiply the given number by itself to get the square number.
- Prime factorize the numerator and denominator to get the square roots.

  Note
  - ❖ When given a decimal, the answer must be presented as a decimal

**Example**

Find the square of 0.4

$(0.4)^2 = 0.4 \times 0.4$

$= \frac{4x4}{10x10}$

$= \frac{16}{100}$

$= 0.16$

**Or**:

$$\begin{array}{r} 0.4 \\ \times 0.4 \\ \hline 16 \\ +0.0 \\ \hline 0.16 \end{array}$$

**<u>Example II</u>**

Workout the square root of 0.36

$\sqrt{0.36} = \sqrt{\frac{36}{100}}$

| | |
|---|---|
| 2 | 36 |
| 2 | 18 |
| 3 | 9 |
| 3 | 3 |
| | 1 |

| | |
|---|---|
| 2 | 100 |
| 2 | 50 |
| 5 | 25 |
| 5 | 5 |
| | 1 |

$\sqrt{\frac{36}{100}} = \sqrt{\frac{2 \times 2 \times 3 \times 3}{2 \times 2 \times 5 \times 5}}$

$= \frac{2x3}{2x5}$

$= \frac{6}{10}$

$= 0.6$

*Remember a question in decimal requires an answer in decimal.

**Activity**

A. Find the square of;

1. 0.1
2. 0.16
3. 0.96
4. 0.11
5. 0.63
6. 0.09

B. Find the square root of

1. 0.49
2. 0.64
3. 0.81
4. 1.44
5. 0.0016
6. 3.24

C. If $K^2 = 2.56$, find the value of 2k.

D. The area of a square garden is 2**.**89$m^2$. Calculate the length of one side of the garden.

**LESSON 6**

**TOPIC : INTEGERS**

**SUB TOPIC : ADDITION OF INTEGERS WITHOUT A NUMBERLINE**

**CONTENT : ADDING INTEGERS WITHOUT A NUMBERLINE**

**COMPETENCES**

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

- Determine the direction of given integers
- Make clear positive movements. (moving forward)
- Make clear negative movements. (moving backwards)
- Use a mind map to add integers.

**NOTE**

- When the same (similar) signs **$-^{-}$ / $+^{+}$** in the same position are multiplied, they give us a positive.
- When different signs in the middle/same position are multiplied they give us a negative.

**- X - = +**

**+ X + = +**

**- X + = -**

**+ X - = -**

<u>Adding integers without a number line</u>

**Example**

1. Add: $^{+}2 + {}^{+}5 = {}^{+}2+({}^{+}5)$

**= $^{+}$2+5**

**= $^{+}$7**

| Positive | Negative |
| --- | --- |
| + + + + + + + + | |
| **$^{+}$7** | 0 |

## Activity

Workout without a number line.

1. $^{+}$2+$^{+}$4
2. $^{+}$3+$^{+}$5
3. $^{+}$2+$^{+}$1
4. $^{+}$4+3
5. $^{+}$5+$^{+}$2
6. $^{-}$2+$^{-}$3
7. $^{-}$6+$^{-}$2
8. $^{-}$4+$^{-}$3
9. $^{-}$1+$^{-}$4
10. $^{-}$7+$^{-}$2

**LESSON 7**

**TOPIC:** **INTEGERS**

**SUB TOPIC:** **ADDITION OF INTEGERS USING A NUMBER LINE**

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

- ❖ Determine the direction of given integers
- ❖ Make clear positive movements. (moving forward)
- ❖ Make clear negative movements. (moving backwards)
- ❖ Use a number line to add integers**.**

**CONTENT**

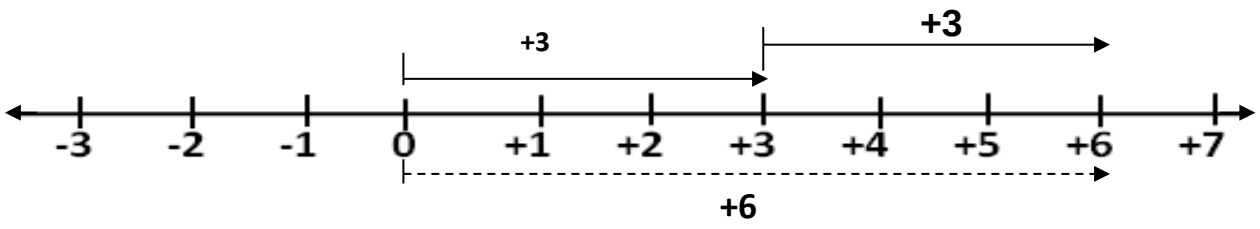
Adding integers using a number line

**REVIEW P.5 WORK**

1. Identify integers on the number line
2. Ordering integers
3. Comparing integers

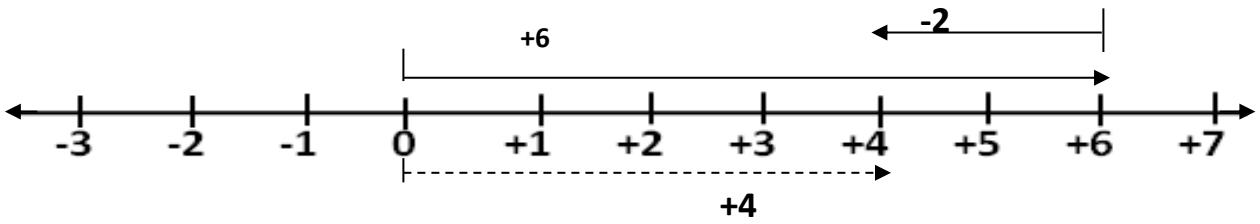
**Examples**

1. Evaluate: $^{+}\mathbf{3} + {}^{+}\mathbf{3}$ using a number line
   Note
   - ➢ $^{+}3$ means move 3 steps forward and continue moving 3 steps forward, your final destination is the answer.




Therefore: $\mathbf{3 + {}^{+}3 = {}^{+}6}$

2. Evaluate $^{+}6 + {}^{-}2$




**Therefore; +6 + -2 = +4**

**ACTIVITY**

A. Workout the following using a number line.

1. $^{+}4 + {}^{+}5$
2. $^{-}4 + {}^{-}3$
3. $^{-}4 + {}^{+}5$
4. $^{+}6 + {}^{+}4$
5. $^{-}5 + {}^{+}4$
6. $^{+}7 + {}^{-}5$

**LESSON 8**

**TOPIC: INTEGERS**

**SUB TOPIC: SUBTRACTION OF INTEGERS WITHOUT A NUMBER LINE**

**CONTENT: SUBTRACTION OF INTEGERS WITHOUT A NUMBER LINE**

**COMPETENCES**

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

- **Determine the direction of given integers**
- **Make clear positive movements. (moving forward)**
- **Make clear negative movements. (moving backwards)**
- **Use a mind map to subtract integers.**

**Note:-**

- Before subtracting integers without a number line, you need to multiply the signs.
- Similar signs multiplied together give gives a positive eg,
  - **- x - = +**
- Different signs multiplied together give a negative. eg
  - **- x + = -**

**Example**

1. Subtract : $^{+}3 - {}^{+}6$ without using a number line

   $^{+}3 - +6 = {}^{+}3 - ({}^{+}6)$

   $= +3 - 6$

   $= -3$

| Pos | Neg |
|---|---|
| + | - |
| + | - |
| + | - |
| | - |
| | - |
| | - |
| **0** | **-3** |

**Activity**

Workout the following without using a number line

1. $^{+}3 - {}^{+}4$
2. $^{-}4 - {}^{-}4$
3. $^{-}6 - {}^{+}6$
4. $^{+}5 - {}^{+}4$
5. $^{+}3 - {}^{+}2$
6. $^{-}4 - {}^{+}2$
7. $^{-}6 - {}^{-}4$
8. $^{+}10 - {}^{-}6$

**LESSON 9**

**TOPIC: INTEGERS**

**SUB TOPIC: SUBTRACTION OF INTEGERS USING A NUMBER LINE**

**CONTENT : SUBTRACTION OF INTEGERS USING A NUMBER LINE**

**COMPETENCES**

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

- Determine the direction of given integers
- Make clear positive movements. (moving forward)
- Make clear negative movements. (moving backwards)
- Use a number line to subtract integers**.**

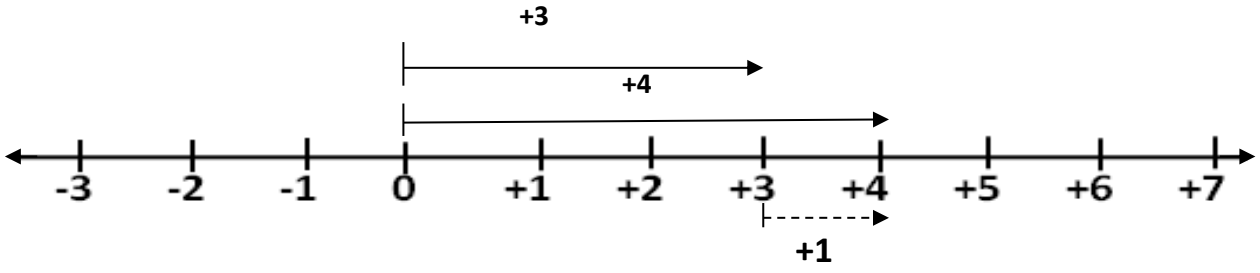
## Introduction

- When subtracting integers using a number line, all integers must start from zero.
- It appears as if two people are going to race.
- To get the answer, draw an arrow from the second integer to the first integer.
- Remember, the first integer must be nearer to the number line.

**Example**

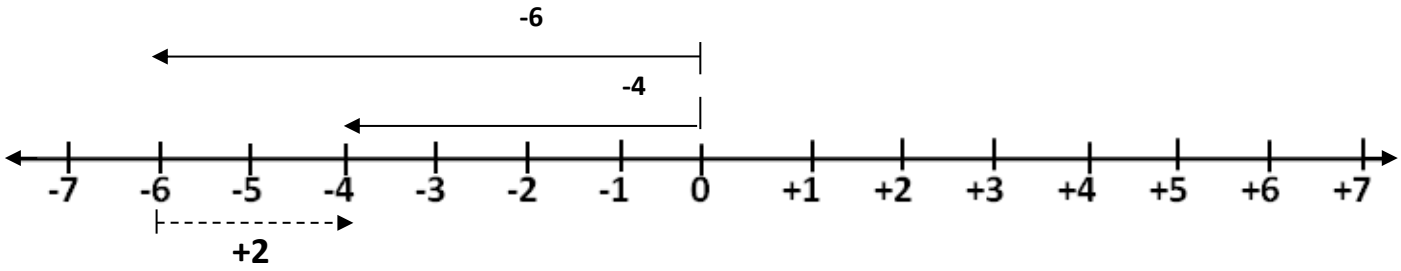
1. **Simplify the following using a number line.**

   $^{+}4 - {}^{+}3$



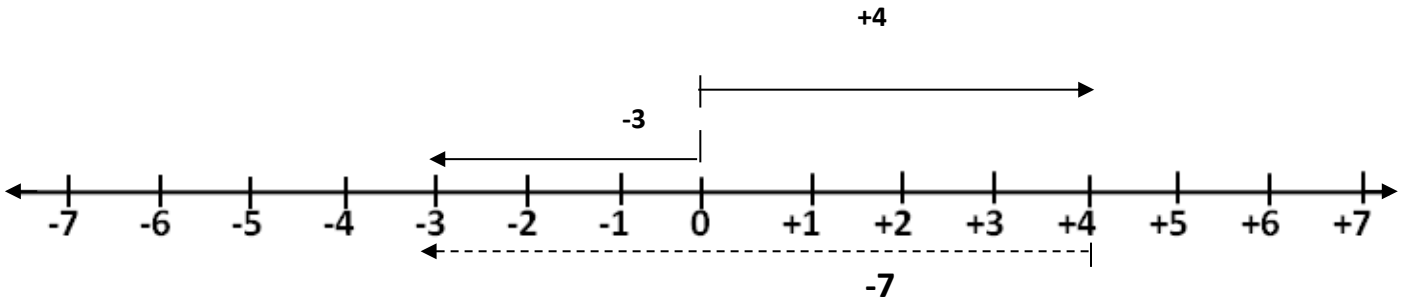

**Therefore; $^{+}4 - {}^{+}3 = {}^{+}1$**

2. simplify:- $^{-}4 - {}^{-}6$




**Therefore; $^{-}4 - {}^{-}6 = {}^{+}2$**

3. simplify :- $^{-}3 - {}^{+}4$




**Therefore; $^{-}3 - {}^{+}4 = {}^{-}7$**

**ACTIVITY**

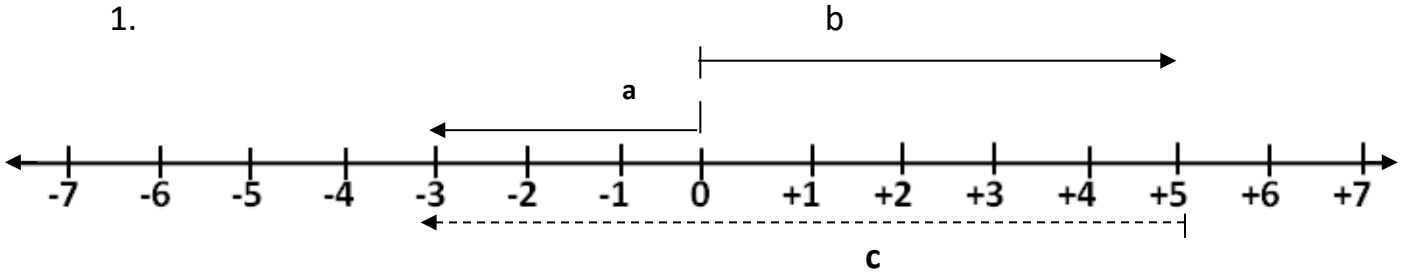
A. Subtract using a number line.
   1. 7 –2
   2. ⁻6 –2
   3. ⁻6 –4
   4. 3 –8

B. Write the subtraction sentence for each of the following number line.

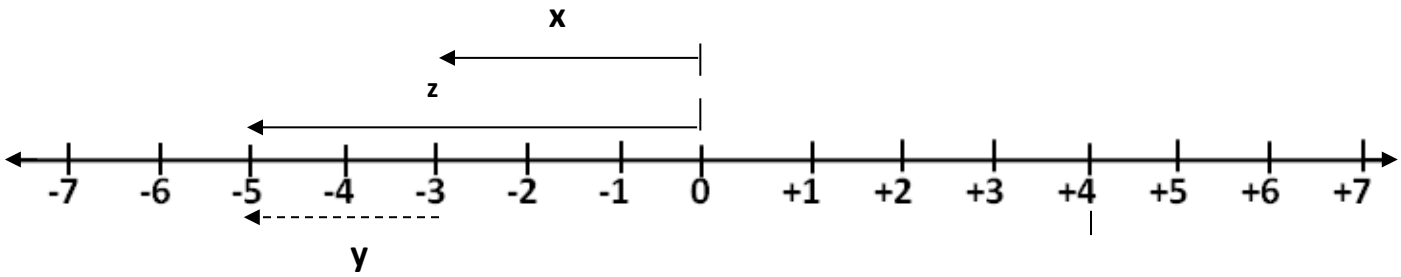
**Note;**

- A mathematical statement has no answer eg. +3+ -4
- A mathematical sentence has an answer eg. +3 + -8 = -5

1.




2.



**LESSON 10**

**TOPIC : INTEGERS**

**SUBTOPIC : MULTIPLICATION OF INTEGERS**

**CONTENT : Multiplication of integers**

**COMPETENCES**

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

- Recognize the number of groups correctly
- Multiply correctly with or without a number line
- Recognize the direction of movement correctly

**Note:**

**+ x + = +**

**- x - = +**

**- x + = -**

**+ x - = -**

**Introduction;**

- When multiplying integers,

-Integers with similar signs multiplied together give a positive result. e.g.

- **- x - = +**
- **+ x + = +**

-Integers with different signs multiplied together give a negative result. e.g.

- **- x + = -**
- **+ x - = -**

**Multiplication of integers**

**Examples**

1. Multiply : 2 x +2
   2 x +2 means two groups of +2
   = +2 + + 2

**Note:**

**+ x + = +**

**- x - = +**

**- x + = -**

**+ x - = -**

$= {}^{+}4$

**Example. 2**

2. Workout $3 \times -4$
   $3 \times {}^{-}4 = {}^{-}12$

**Exercise**

Multiply the following

1. $2 \times {}^{-}5$
2. $3 \times {}^{+}4$
3. $3 \times {}^{-}2$
4. $4 \times {}^{-}2$
5. $2 \times -1$
6. $3 \times {}^{-}2$
7. $2 \times {}^{-}6$
8. $2 \times {}^{+}5$
9. $3 \times {}^{-}4$
10. $4 \times {}^{-}2$
11. $4 \times {}^{-}2$

**LESSON 11**

**TOPIC: INTEGERS**

**SUB TOPIC: MULTIPLICATION OF INTEGERS USING A NUMBER LINE.**

**COMPETENCES**

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

- Identify the given operation.
- Draw the number line correctly.
- Make the laps on the number line.
- Interpret multiplication on the number line.

**CONTENT**

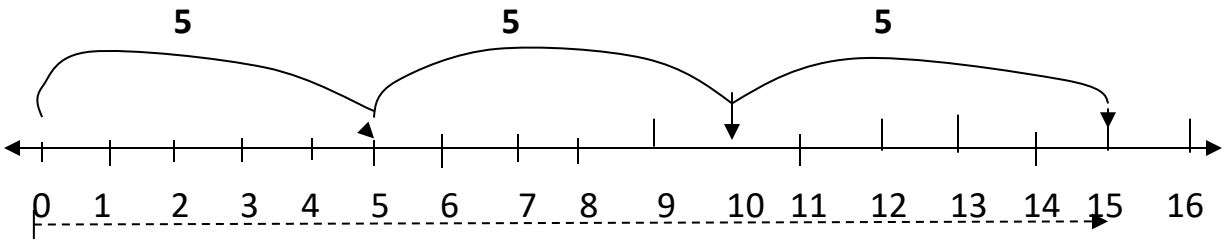
Multiplication

**Note;**

- The first integer represents number of groups/ laps to make.
- The second one represents steps in each lap and the direction.

Examples

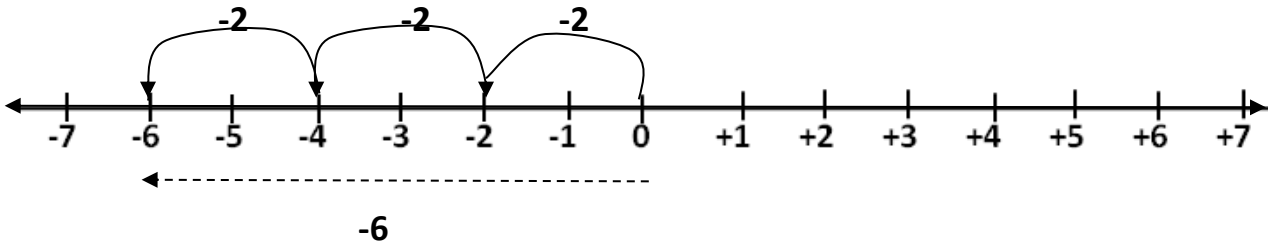
1. Multiply: $^{+}3 \times {}^{+}5$ (this means make **3 groups of five steps to the positive side.**)




15

:. $^{+}3 \times {}^{+}5 = {}^{+}15$

+3 x -2 (**This means three groups of 2 steps to the negative side**.)




:. $^{+}3 \times {}^{-}2 = {}^{-}6$

**ACTIVITY**

Multiply the following using a number line

1. $^{+}5 \times {}^{+}2$
2. $^{+}8 \times {}^{+}4$
3. $^{+}9 \times {}^{+}6$
4. $^{+}5 \times {}^{+}7$
5. $^{+}12 \times {}^{+}7$
6. $^{+}3 \times {}^{+}5$
7. $^{+}4 \times {}^{+}3$

**LESSON 12**

**TOPIC: INTEGERS**

**SUB TOPIC: APPLICATION OF INTEGERS**

**COMPETENCE: by the end of this lesson, you should be able to:-**

- Interpret the word statements
- Apply integers in daily life

**APPLICATION OF INTEGERS**

Key words

1. **Debt** means negative (-ve)
2. **Loss** means negative (-ve)
3. **profit** means positive (+ve)
4. **Gain** means positive (+ve)
5. **Pay** = positive (+ve)
6. **Starting time** of an event = 0
7. **Time before** the start = negative (-ve)
8. **Time later** / after the start = positive(+ve)

Examples 1

1. Kayemba had a debt of shs. 150,000 with each of his three friends. He received shs. 400,000 as salary. Find Kayemba's financial position after paying off his debts.

   Soln

   Debt = -ve (shs. $^{-}$150,000)

   Total debt = shs. $^{-}$150,000

   X 3

   shs. $^{-}$450,000

Salary = shs. 400,000

Remaining debt = shs. $^{-}$450,000 + 400,000

= shs. 400,000 – 450,000

= shs. $^{-}$50,000

**Examples 2**

1. Kato borrowed sh. 500, but paid back sh. 300. How much money does Kato have?

   Sh. 500 + sh. 300 = -sh. 200

   **He has a debt of sh. 200**

2. The temperature was $20^0$F but dropped by $23^0$F. Find the new temperature.

   $^{+}20F - 23^0F = {}^{-}3^0F$

   **The new temperature is $^{-}3^0F$**

**ACTIVITY**

Workout the following using integers

1. A motorist moved 100m forward and reversed 150m. How far is she from the starting point?

2. A frog jumped 3 steps four times before diving into the swimming pool. Calculate the distance covered by the frog.

3. Ali's weight dropped by 10kg from 60kg. Find Ali's weight.

4. Move 4metres backwards and another 4metres backwards. Write your last position using integers.

5. Omanya cycled 60km to town and another 2km to his office. How far is Omanya now?

**LESSON 13**

**TOPIC : FRACTIONS**

**SUB TOPIC : MULTIPLICATION OF SIMPLE FRACTIONS.**

**COMPETENCES**

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

- Find the product of the given fractions.
- Multiply numerators and denominators correctly.
- Reduce/simplify products to their Lowest terms

**CONTENT**

**Note**

- **In multiplication of fraction, we get the product of numerators alone and that of denominators alone.**
- **Simplify the product to the simplest form.**

**Simplify** $\frac{1}{3}$ x 12

$\frac{1}{3}$ x $\frac{12^{4}}{}$

1 x 4

**= 4**

**Multiply:** $\frac{2}{3}$ x $\frac{1}{5}$

$\frac{2}{3}$ x $\frac{1}{5}$ $= \frac{2x1}{3x5}$

$= \frac{2}{15}$

**Activity**

1. $\frac{1}{2}$ x12
2. $\frac{3}{6}$ x 48
3. $\frac{2}{3}$ of 12
4. $\frac{1}{2}$ x $\frac{1}{3}$
5. $\frac{2}{9}$ x $\frac{4}{10}$
6. $6\frac{2}{3}$ x $1\frac{1}{8}$
7. 12 x $\frac{2}{3}$
8. $2\frac{1}{2}$ x $\frac{1}{4}$

**More about multiplication of fractions.**

1. Calculate the product of $2\frac{1}{2}$ and $\frac{1}{4}$ .
2. What is the product of $\frac{3}{4}$ and $\frac{1}{3}$ ?
3. What is a quarter of 60kgs?
4. What is $\frac{3}{5}$ of 1200 birds
5. Calculate $\frac{1}{4}$ of $\frac{4}{7}$

**LESSON 14**

**TOPIC : FRACTIONS**

**SUB TOPIC : FINDIND THE RECIPROCAL**

**COMPETENCES: By the end of the lesson you should be able to:-**

- **Understand the reciprocal of a number**
- **Calculate to get the reciprocal**
- **Use the reciprocal to determine the multiplicative inverse.**

**Note**

- A number multiplied by its reciprocal is equal to 1.

**CONTENT**

**Example**

1. What is the reciprocal of 4**?**
   **This means the number multiplied by 4** to give **1** as a product
   Let the reciprocal be **m**.

$4 \times m = 1$

$4m = 1$

$\frac{\cancel{4}m}{\cancel{4}_1} = \frac{1}{4}$

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

The number is $\frac{1}{4}$

What number must be multiplied by 0.7 to give 1?

$0.7 \times d = 1$

$\frac{7d}{10} = 1$

$\cancel{10}^{1} \times \frac{7d}{\cancel{10}} = 1 \times 10$

$\frac{7d}{7} = \frac{10}{7}$

$d = \frac{10}{7}$

$d = 1\frac{3}{7}$

**Application**

1. What is the reciprocal of $2\frac{1}{4}$ ?
2. What number do we multiply by 6 to give 1 as a product?
3. What number must be multiplied by 0.2 to give 1?
4. What is the reciprocal of $\frac{3}{4}$ ?
5. Calculate the reciprocal of 8.

**LESSON 15**
**TOPIC : FRACTIONS**
**SUB TOPIC : DIVISION OF FRACTIONS**

**COMPETENCES**
**By the end of the lesson, you should be able to:**
- Divide fractions correctly.
- Use the reciprocal during division
- Multiply the fractions after getting the reciprocal.
- Divide fractions by fractions

**Division of fractions**

**Note**

- **Get reciprocal of the divisor**
- **Multiply the dividend by the reciprocal got.**
- **Simplify the product to get your final answer.**

1.Divide $\frac{2}{3} \div 2$

$= \frac{2}{3} \div \frac{2}{1}$

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

$= \frac{1x1}{3x1}$

$= \frac{1}{3}$

2.Work out: $\frac{3}{4} \div \frac{1}{2}$

$\frac{3}{4} \div \frac{1}{2} = \frac{3}{4} \times \frac{2}{1}$

$= \frac{3x2}{4x1}$

$= \frac{3}{2}$

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

3. Divide $5 \div \frac{2}{3}$

$= \frac{5}{1} \div \frac{2}{3}$

$= \frac{5}{1} \times \frac{2}{3}$

$= \frac{15}{2}$

$= 7\frac{1}{2}$

**Activity**

Divide the following fractions

1. $\frac{3}{4} \div \frac{1}{2}$

2. $2\frac{1}{2} \div 1\frac{1}{4}$

3. $\frac{7}{12} \div \frac{3}{4}$

4. $\frac{1}{2} \div \frac{3}{4}$

5. $6 \div \frac{2}{3}$

6. $12 \div \frac{3}{4}$

7. $18 \div \frac{1}{6}$

**Application of division of fractions**

8. A bag contains $5\frac{1}{2}$ kg of maize four. Find the number of $\frac{1}{2}$ kg packets that will be obtained from the bag?
9. 12 litres of milk were given to children. If each child got $\frac{3}{4}$ of a litre, how many children got milk?
10. By what fraction must $6\frac{1}{2}$ be divided to get $2\frac{1}{2}$ ?
11. How many half litre bottles can be got from a 10 litre jerrycan?