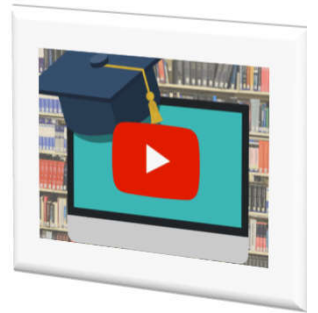


# OGUN DIGICLASS

**Class: PRIMARY**

**SUBJECT: MATHEMATICS**

**TOPIC: BALANCING EQUATION**



[www.ogundigiclass.ng](http://www.ogundigiclass.ng)

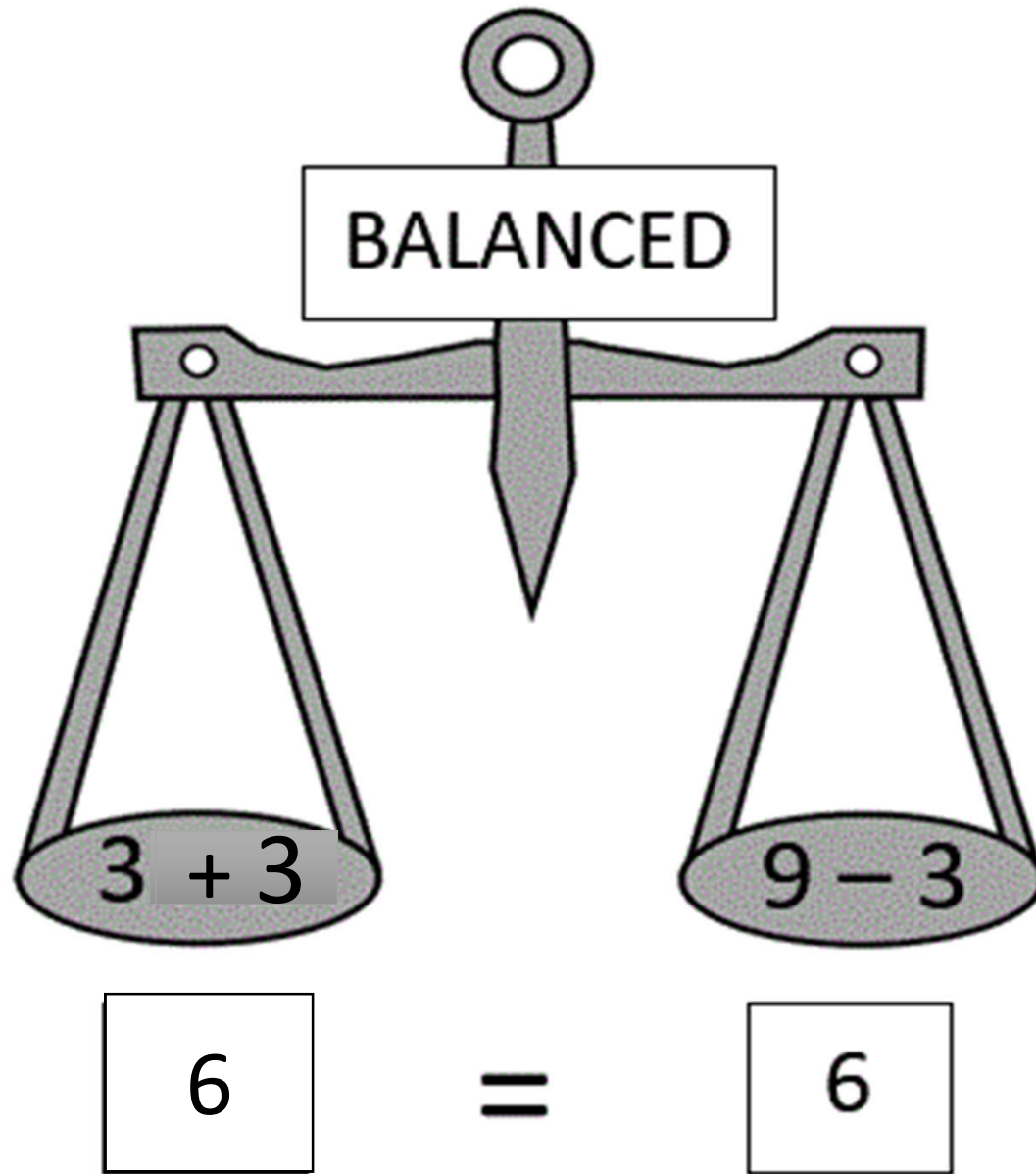
# **LEARNING OBJECTIVES**



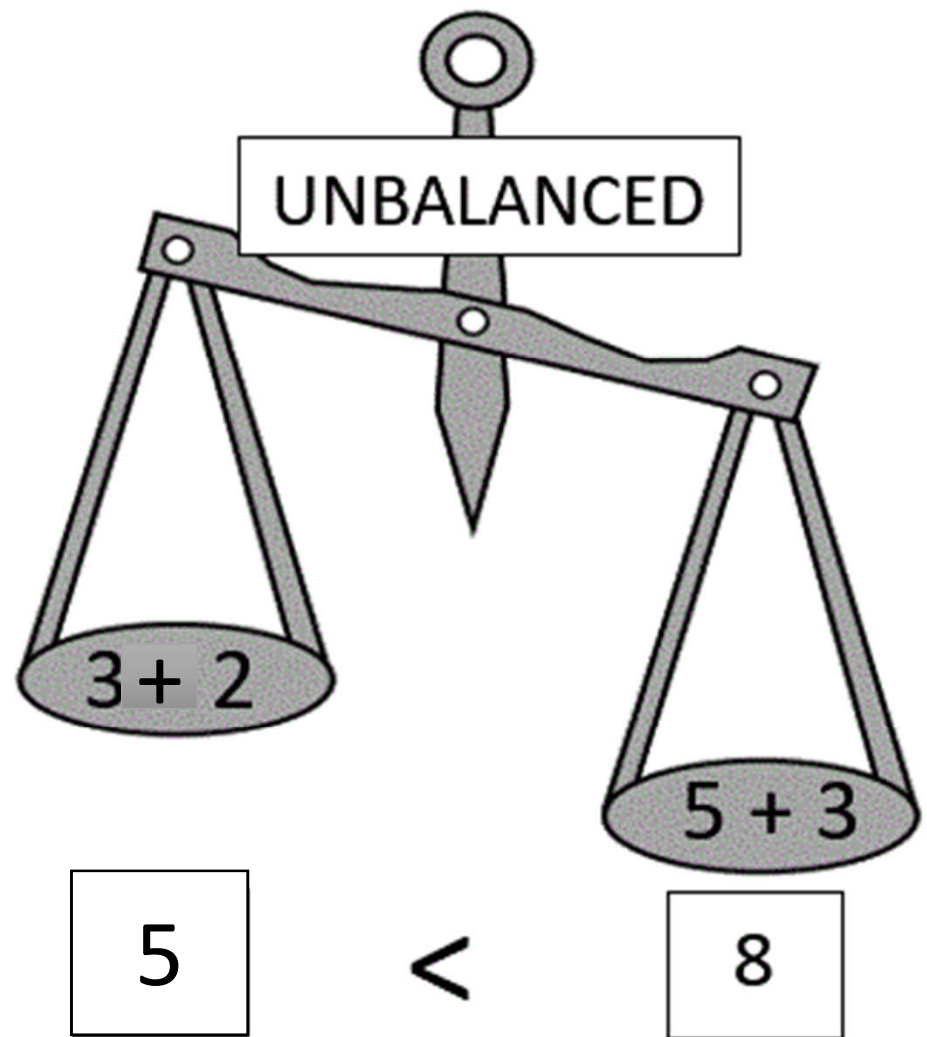
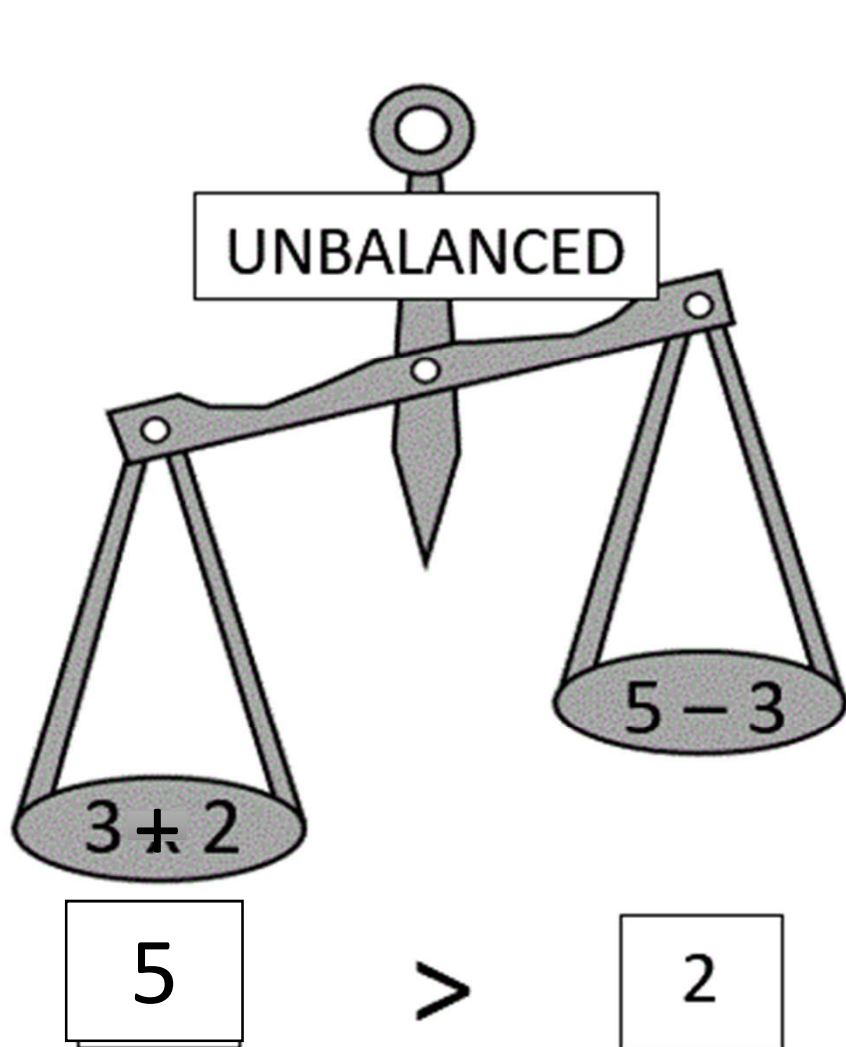
- ❖ define a balanced equation
- ❖ Solve problems on balancing equation

## WHAT IS A BALANCED EQUATION?

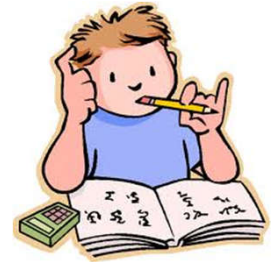
**A balanced equation is an equation where both sides are equal to the same amount**



*Remember -  
equals  
means  
balanced/  
the same as*



## ***How to balance a mathematical equations***

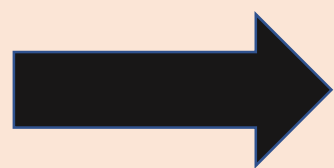
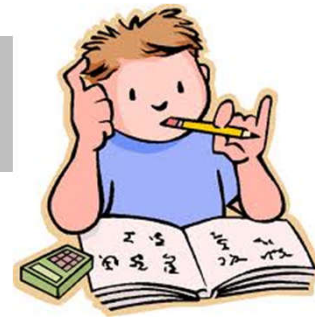


***Remember - equals means balanced/ the same as***

**Step 1} find the value of the side of the equation without any missing numbers**

**Step 2 } make sure the value on the other side of the equation is equal to this value**

# METHODS



**Additive inverse**  
**Collecting the like terms**

## ***ADDITIVE INVERSE***

**The additive inverse of a number  $x$  is the number that, when added to  $x$ , gives zero**

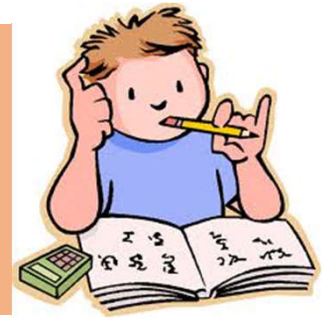
### **Example**

**The additive inverse of 20 is -20**

**i.e  $20 + (-20) = 0$**



Complete the missing numbers using the inverse. Then check your answers using a calculator!



1)  $\square - 22 = 38$

2)  $Y + 58 = 108$

3)  $X - 135 = 70$

## SOLUTION

1.  $\square - 22 = 38$

$$2. Y + 58 = 108$$

## SOLUTION



1.  $\square - 22 = 38$

**The additive inverse of -22 is + 22**

$$\square - 22 + 22 = 38 + 22$$

$$\square = 60$$

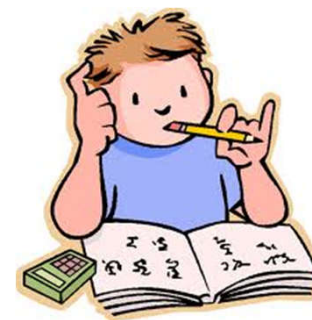
2.  $y + 58 = 108$

**The additive inverse of +58 is - 58**

$$y + 58 - 58 = 108 - 58$$

$$y = 50$$

## method 2



1.  $\square - 22 = 38$

**Collect the like terms**

$$\square = 38 + 22$$

$$\square = 60$$

2.  $y + 58 = 108$

**Collecting the like terms**

$$y = 108 - 58$$

$$y = 50$$

*Balance the following equations*



1.  $102 + 19 = \underline{\quad} - 54$

2.  $97 - 14 = \underline{\quad} + 33$

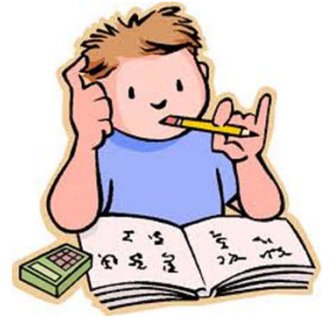
## SOLUTION

1.  $102 + 19 = \underline{\quad} - 54$

$$2. 97 - 14 = \underline{\quad} + 33$$



## SOLUTION



$$1. \quad 102 + 19 = \underline{\quad} - 54$$

$$121 \quad = 175 - 54$$

$$121 \quad = 121$$

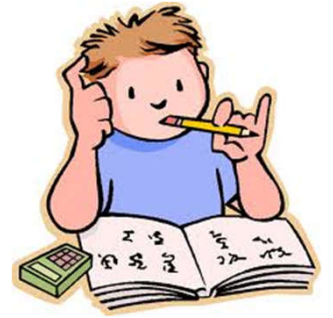
using additive method

$$2. \quad 97 - 14 = \underline{\quad} + 33$$

$$83 \quad = 50 + 33$$

$$83 \quad = 83$$

# SUMMARY

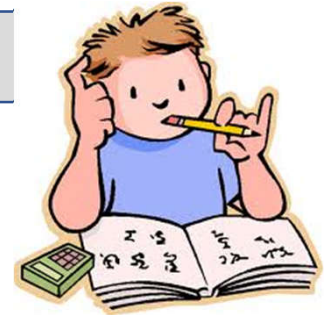


**A balanced equation is an equation where both sides are equal to the same amount**

## **METHOD**

- ✓ **Additive inverse**
- ✓ **Collecting the like terms**

# ASSIGNMENT



Balance the following equations

1.  $\square + 134 = 300$

2.  $X - 143 = 533$

3.  $Y + 34 = 65$

4.  $97 + 8 = \underline{\quad} - 56$

5.  $29 + 14 = \underline{\quad} - 19$