# UNIT 14: ALGEBRA



## Solving equations.

## Example 1:

Solve: 
$$m + 4m = 20$$

$$5 m = 20$$

$$1 & m = 20$$

$$1^{8} & 5^{1}$$

$$m = 4$$

### Example 2:

Solve: 
$$3g + g + 2g = 30$$
  
 $6g = 30$   
 $6g^2 = 3e^5$   
 $16^2 = 81$   
 $g = 5$ 

#### Exercise 14:27

Solve the equation

1. 
$$x + x = 8$$

2. 
$$2y + y = 12$$

5. 
$$y+y+2y = 24$$

4. 
$$2p + 2p = 20$$
 7.  $n + 7n = 32$   
5.  $y+y+2y = 24$  8.  $p+5p+2p = 40$ 

3. 
$$a + 3a = 16$$

6. 
$$2x + x + 2x = 25$$

9. 
$$t' + 4t = 45$$

# Forming and solving equations Example 1

Musa is twice as old as Anna. Their total age is 18 years.

How old is Anna?

Let Anna's age be x.

Anna	Musa	Total
x yrs	2x yrs	18 yrs

Therefore x + 2x

18<sup>6</sup>

Anna's age is = 6 yrs

#### Exercise 14:28

Form and solve equations.

- 1. Kyege's age is three times Kato's age. If their total age is 20 yrs, how old is Kato?
- 2. A mother is 4 times as old as her daughter. Their total age is 30 yrs, find the daughter's age.
- 3. Apio weighs 3x kg and Waiswa weighs 4x kg. If their total weight is 140 kg, find Apio's weight.
- 4. The distance from Bruno's home to school is 10 times the distance to church from school. If the total distance is 22 km, how far is the church from school?
- 5. A father is 3 times as old as his daughter. Their total age is 48 years. How old is the daughter?