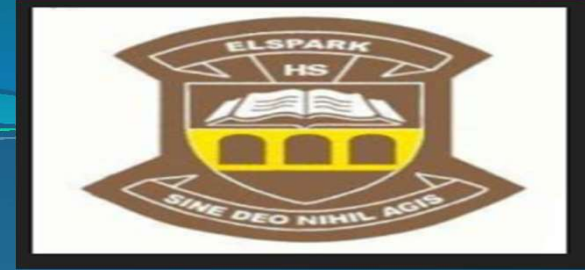


MATHEMATICS



Topic: Solve the equations.

- ❖ Solve equations using additive and multiplicative inverses.
- ❖ The additive inverse of $+4$ is -4 . The additive inverse of -11 is $+11$.
- ❖ The multiplicative inverse of 4 is $\frac{1}{4}$. The multiplicative inverse of $\frac{1}{2}$ is 2 .
- ❖ If there are any brackets, multiply them first.
- ❖ If there are any fractions, get rid of the denominators first.

Worked Examples

1. Solve for x

$$x - 9 = 14$$

$$x - 9 + 9 = 14 - 9$$

$$x = 23$$

Add +9 both sides of the equations

2. Solve for x

$$6x + 2 = -10$$

$$6x + 2 - 2 = -10 - 2$$

$$6x = 12$$

$$\frac{6x}{6} = \frac{12}{6}$$

$$x = 2$$

Add -2 both sides

Divide by 6 both sides

3. Solve for n

$$3(n + 5) = 18$$

$$3n + 15 = 18$$

$$3n = 18 - 15$$

$$3n = 3$$

$$n = 1$$

Remove brackets by (\times) with 3

4. How old am I if 180 reduced by two times my age is 56?

Let my age be x.

$$180 - 2x = 56$$

$$-2x = 56 - 180$$

$$-2x = -124$$

$$x = 62$$

Exercise 9.3 pg 112

3.1

3.2

3.3

3.4

3.5

3.6

3.7

3.8

3.9

3.10