PERIOD 1

SUB TOPIC: DEFINITION AND SOLVING EQUATIONS

SUBJECT : MATHEMATICS
CHAPTER NUMBER: 12
CHAPTER NAME :SIMPLE LINEAR EQUATIONS

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vi) $40p^3q^4r^5 \div 10p^3q$

$= \frac{40}{10} \frac{p^3 q^4 r^5}{p^3 q}$

$= 4 \times p^{3-3} \; q^{4-1} \; r^5 \qquad p^0 = 1$

$= 4 \; p^0 \; q^3$

$\frac{p \times p \times p \times}{p \times p \times}$

$(x + 2y)(x^2 + 7y)$

$= x(x^2 + 7y) + 2y(x^2 + 7y)$

$= x^3 + 7xy + 2x^2y + 14y^2$

$=$

Divide $x+4$ into $x^2 + 7x + 12$

x

$x^2 + 4x$

$\frac{x^2}{x} = x$

LEARNING OUTCOME

- Students will be able to
- Form any equations depending on situations .
- Solve any simple equations .

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PREVIOUS CONNECT

- Define an algebraic expression.

Algebraic Expressions

It is an expression involving constant, variable and some operations like addition, multiplication etc.

Variable

Variable is an unknown number which could have a different numerical value. It is called **Variable** as it can vary.
It is represented by different letters like x, y, a, b etc.

Equation

An equation is a condition on a variable. It says that two expressions are equal.

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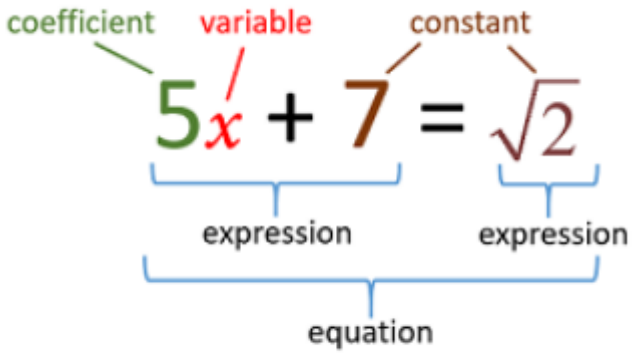

Terms: $5x$, 7, $\sqrt{2}$

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Important Points Related to the Equation

•One of the expressions must have a variable.

•LHS of the equation is equal to the RHS of the equation.

•An expression does not have equality sign but an equation always has an equality sign.

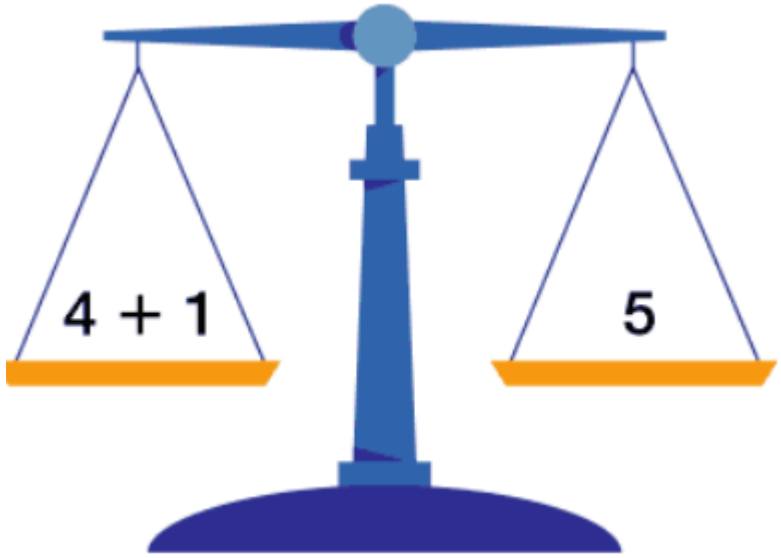
•If we interchange the position of the expression from LHS to RHS or vice versa, the equation remains the same.

$5x + 7 = 2$
$2 = 5x + 7$

Both the above equations are same.

Balanced Equation

When the LHS = RHS of an equation, then it is said to be a balanced equation.



Solve the following equations :

EVALUATION QUESTIONS

Question 1.

$x + 5 = 10$

Solution:

$x + 5 = 10$

$\Rightarrow x = 10 - 5 = 5$

Question 2.

$2 + y = 7$

Solution:

$2 + y = 7$

$\Rightarrow = 7 - 2 = 5$

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Question 14.

14 = 27-x

14 = 27 -x

⇒ x = 27- 14

⇒ x = 13

∴ x= 13

Question 15.

10 + 6a = 40

10 + 6a = 40

⇒ 6a = 40 -10 = 30

⇒ $a = \frac{30}{6} = 5$

∴ a= 5

Question 23.

$$p - 12 = 2\frac{2}{3}$$

$$p - 12 = 2\frac{2}{3} \quad \Rightarrow p - 12 = \frac{8}{3}$$

$$\Rightarrow \quad p = \frac{8}{3} + \frac{12}{1} = \frac{8 + 36}{3} = \frac{44}{3}$$

$$\therefore \quad p = \frac{44}{3} = 14\frac{2}{3}$$

Question 32.

$$\frac{7}{10}x + 6 = 41$$

$$\frac{7}{10}x + 6 = 41$$

$$\frac{7}{10}x + 6 = 41 \quad \Rightarrow \quad \frac{7}{10}x = 41 - 6 = 35$$

$$\Rightarrow \quad 7x = 35 \times 10 = 350$$

$$\Rightarrow \quad x = \frac{350}{7} = 50$$

$$\therefore \quad x = 50$$

HOME WORK

- EX12A
- Q.NO.9 to 14.

AHA

$$(a)\ \frac{5z+1}{3}=7 \qquad (b)\ \frac{5x}{3}+3=x+7$$

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THANKING YOU

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