

NAME:-

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SUBJECT:

Business Mathematics

Instructor:

JUHEED - UR - REHMAN

ASSIGNMENT:- 1

QUESTION#1

a) Being a student of Art and Design discuss the importance of Business Mathematics course in your professional life.

Ans:- The Business Mathematics is very importance in our life because we are the student of interior design and our all work base of the measurement. with out mathematic it will be very difficult for us.

b) Define with examples:

1) EQUAL SET:-

Two sets are equal if they have exactly the same elements

EXAMPLE:- $\{a, c, t\} = \{c, t, a\}$

2) FINITE AND INFINITE SET:-

If a set has a limited number of elements then it is limited finite but if its number of elements is unlimited then its infinite

EXAMPLE:- $\{2, 4, 6, 8, 10\}$ Finite

$\{1, 2, 3, \dots\}$ infinite

SUB SET:-

A set A is a subset of another set B if all elements of the set A are elements of the set B . In other words the set A is ~~the~~ contained inside the set B

FOR EXAMPLE:-

if A is the set $\{A, B, C, D\}$ and B is the set $\{D, C, E, B, A\}$ then $A \subset B$ ~~and~~ But $B \not\subset A$.

QUESTION#2

a) Find the solution of the equation

$$8(x-1) + 17(x-3) = 4(4x-9) + 4$$

Sol:-

$$\Rightarrow 8(x-1) + 17(x-3) = 4(4x-9) + 4$$

$$\Rightarrow 8x - 8 + 17x - 51 = 16x - 36 + 4$$

$$\Rightarrow 25x - 59 - 16x + 36 - 4 = 0$$

$$\Rightarrow 9x - 27 = 0$$

$$\Rightarrow 9x = 27$$

$$\Rightarrow \frac{9x}{9} = \frac{27}{9}$$

$$\Rightarrow \boxed{x = 3} \text{ ANS}$$

b. Solve the equation by using substitution or elimination method

$$3x + y = 9$$

$$5x + 4y = 22$$

using Elimination method

$$3x + y = 9 \rightarrow \textcircled{1}$$

$$5x + 4y = 22 \rightarrow \textcircled{2}$$

multiply $\textcircled{1}$ by 4

$$4 \times \textcircled{1} \Rightarrow 12x + 4y = 36$$

$$\pm 5x \pm 4y = \pm 22$$

$$7x = 14$$

$$\Rightarrow \boxed{x = 2}$$

Put $x = 2$ in $\textcircled{1}$

$$\textcircled{1} \Rightarrow 3(2) + y = 9$$

$$6 + y = 9 \Rightarrow y = 9 - 6$$

$$\boxed{y = 3}$$

Question 3

a) Define ratio proportion with example three properties of proportion with example.

Ans:- A proportion is equation with a ratio ~~on~~ on each side. It is a statement that two ratios are equal. $3/4 = 6/8$ is an example of proportion. when one unknown cross products may be used to find unknown number.

b) Explain the concept of time value of Money with an example.

Ans:- The time value of money concept states that cash received today is more valuable than cash received at some point in the future.

FOR EXAMPLE:-

If a person owns \$10,000 now and invests it at an interest rate of 10%. Then she will have earned \$1,000 by having use of the money for one year.

α ————— α ————— α