

Basic Mathematics

Lecture 2 and 3

Assignment 2 (30 Points)

Instructions

- a) Complete the Assignment. This Assignment covers Lectures 2 and 3.
- 1) Solve for x in the following; $4|x - 2| = 24$ (2 Points)
 - 2) Solve; $|x - 5| = |x + 7|$ (2 Points)
 - 3) Solve: $|x - 7| < 12$ (2 Points)
 - 4) Solve; $|x + 2| \geq 17$ (2 Points)
 - 5) Factorize: $x^2 - 8x + 12$ (2 Points)
 - 6) Factorize: $36x^2 - 49$ (2 Points)
 - 7) $3x^2 + 10x + 8$ (2 Points)
 - 8) A survey was carried in a local hotel. It was noted that 17 people took Fanta F, 25 took coke C, and 28 took sprite S. 9 people took a Fanta and coke, 12 took a coke and sprite, and 7 took a Fanta and sprite. Suppose 51 people were in the survey and 5 people never took any of these three drinks. Use a Venn diagram to determine how many took all the three types of drinks. (4 Points)
 - 9) The following table represent the number of people who ate 3 types of fruits

Fruit	No. of people
Mango only	3
Mango but not orange	7
Mango and Apple	5
Mango	10
Orange and apple	6
Apple	12

If the total number of fruits was 21, use a Venn diagram to determine the number of people that ate;

- (i) Oranges (4 Points)
- (ii) Orange or apple but not a mango (2 Points)
- (iii) Apple only (2 Points)
- (iv) Apple but not an orange (2 Points)

(v) All

(2 Points)