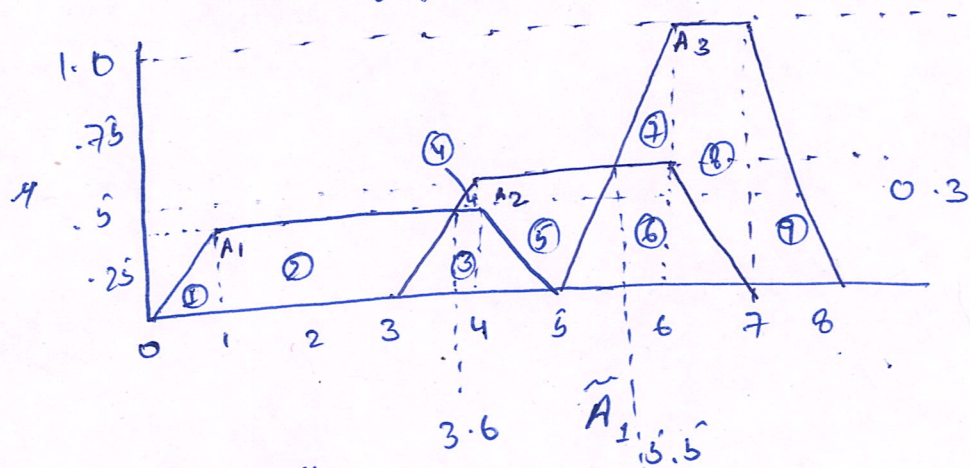<u>Example:</u> ①

$\tilde{A}_1, \tilde{A}_2, \, \& \, \tilde{A}_3$ are three fuzzy set as shown below & 4th fig show aggregate of fuzzy set

Using Centroid method

Area Seg No	Area (A)	$\bar{x}$	$A\bar{x}$
1	$\frac{1}{2} \times 0.3 \times 1 = 0.15$	0.67	0.1005
2	$2.6 \times 0.3 = 0.78$	23	1.794
3	$.3 \times 0.4 = 0.12$	3 8	.456
4	$\frac{1}{2} \times 0.4 \times 0.2 = 0.4$	3.8667	0.1546
5	$1.5 \times 0.5 = 0.75$	4.75	3.5625
6	$0.5 \times 0.5 = 0.25$	5.75	1.4375 ~~0.729~~
7	0.125	5.833	~~0.729~~ 0.729
8	1	6.5	6.5
9	0.5	7.33	3.665

$$x^* = \frac{\sum A\bar{x}}{\sum A} = \frac{18.3991}{3.715} = 4.953$$

Page 239: Calculate using COS & MOM

<u>A Centroid</u>

$$\bar{x} = \frac{x_1 + x_2 + x_3}{3}$$

$$\bar{y} = \frac{y_1 + y_2 + y_3}{3}$$