

- **Division**

$$[a_1^{(\alpha)}, a_3^{(\alpha)}](/)[b_1^{(\alpha)}, b_3^{(\alpha)}] = [a_1^{(\alpha)}/b_1^{(\alpha)} \wedge a_1^{(\alpha)}/b_3^{(\alpha)} \wedge a_3^{(\alpha)}/b_1^{(\alpha)} \wedge a_3^{(\alpha)}/b_3^{(\alpha)}, a_1^{(\alpha)}/b_1^{(\alpha)} \vee a_1^{(\alpha)}/b_3^{(\alpha)} \vee a_3^{(\alpha)}/b_1^{(\alpha)} \vee a_3^{(\alpha)}/b_3^{(\alpha)}]$$

except $b_1^{(\alpha)} = 0$ and $b_3^{(\alpha)} = 0$

- **Multiplication scalar value to the interval $a \in R$**

$$a [b_1^{(\alpha)}, b_3^{(\alpha)}] = [a \cdot b_1^{(\alpha)} \wedge a \cdot b_3^{(\alpha)}, a \cdot b_1^{(\alpha)} \vee a \cdot b_3^{(\alpha)}]$$

Operation of Fuzzy Number

- **Addition $A(+) B$**

$$\mu_{A(+)B}(z) = \bigvee_{z=x+y} (\mu_A(x) \wedge \mu_B(y))$$

- **Subtraction $A(-) B$**

$$\mu_{A(-)B}(z) = \bigvee_{z=x-y} (\mu_A(x) \wedge \mu_B(y))$$

- **Multiplication $A(.) B$**

$$\mu_{A(.)B}(z) = \bigvee_{z=x.y} (\mu_A(x) \wedge \mu_B(y))$$

- **Division $A(/) B$**

$$\mu_{A(/)B}(z) = \bigvee_{z=x/y} (\mu_A(x) \wedge \mu_B(y))$$

- **Minimum: $A(\wedge) B$**

$$\mu_{A(\wedge)B}(z) = \bigvee_{z=x \wedge y} (\mu_A(x) \wedge \mu_B(y))$$

- **Maximum $A(\vee) B$**

$$\mu_{A(\vee)B}(z) = \bigvee_{z=x \vee y} (\mu_A(x) \wedge \mu_B(y))$$