

- **Division**

$$[a_1, a_3] (/) [b_1, b_3] = [a_1/b_1 \wedge a_1/b_3 \wedge a_3/b_1 \wedge a_3/b_3, \\ a_1/b_1 \vee a_1/b_3 \vee a_3/b_1 \vee a_3/b_3]$$

Except $b_3 = 0$ و $b_1 = 0$

- **Inverse interval**

$$[a_1, a_3]^{-1} = [\frac{1}{a_1} \wedge \frac{1}{a_3}, \frac{1}{a_1} \vee \frac{1}{a_3}]$$

Except $a_3 = 0$ و $a_1 = 0$

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

$$a [b_1, b_3] = [a \cdot b_1 \wedge a \cdot b_3, a \cdot b_1 \vee a \cdot b_3]$$

Not ::: \wedge *min* , \vee *max*

Characteristics of arithmetic operations in closed intervals

Let $A=[a_1, a_2]$, $B=[b_1, b_2]$, $C=[c_1, c_2]$, $0=[0, 0]$, $1=[1, 1]$

The characteristics are as follows:-

1- $A+B=B+A$, $A.B=B.A$

2- $(A+B)+C=A+(B+C)$, $(A.B).C=A.(B.C)$