

Exercise from fuzzy algebras.

Exercise 4.1 *Decide whether the equality*

$$\alpha \dot{\vee} (\alpha \dot{\wedge} \beta) = \alpha$$

holds for all α, β for the following choices of operations $\dot{\wedge}, \dot{\vee}$:

1. $\dot{\wedge}_S, \dot{\vee}_S,$

2. $\dot{\wedge}_P, \dot{\vee}_P,$

3. $\dot{\wedge}_P, \dot{\vee}_L,$

4. $\dot{\wedge}_L, \dot{\vee}_P,$

5. $\dot{\wedge}_L, \dot{\vee}_L.$