



# Fuzzy Sets

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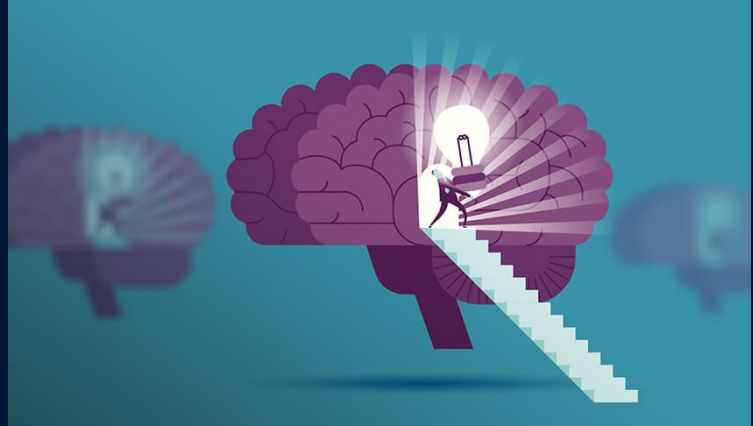
# What are Fuzzy Sets?



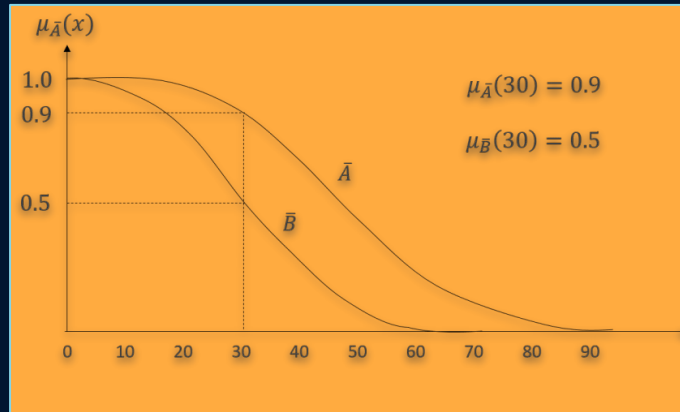
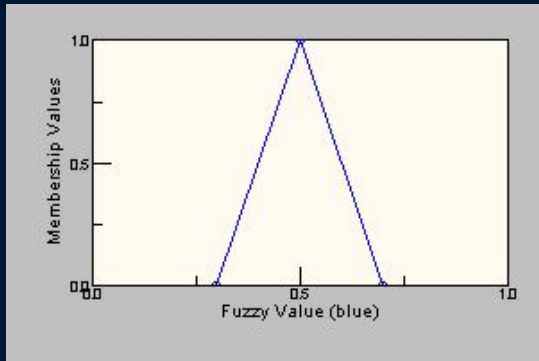
- Derives from Fuzzy Logic (decision making set)
- Mathematical model of vague or quantitative data = Fuzzy Set

# Why are Fuzzy Sets Important?

No like seriously, why?



# Valid Uses of Fuzzy Sets

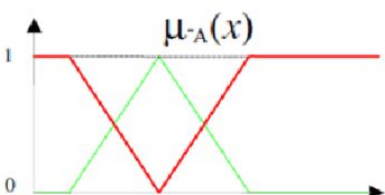
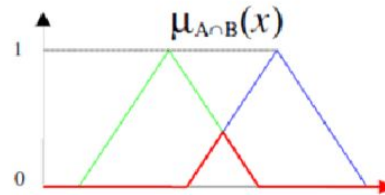
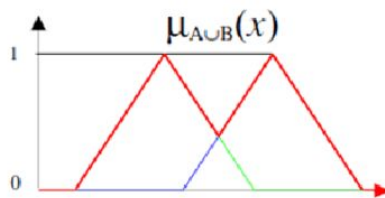
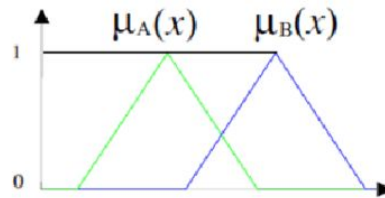


# Are Fuzzy Sets THAT special?

Union :  $\mu_{(A \cup B)}(x) = \max(\mu_{(A)}(x), \mu_{(B)}(x))$

Intersection :  $\mu_{(A \cap B)}(x) = \min(\mu_{(A)}(x), \mu_{(B)}(x))$

Complement :  $\mu_{(\bar{A})}(x) = 1 - \mu_{(A)}(x)$







**Wrapping  
It All Up!**

# Works Cited

Codecrucks. "Fuzzy Set Example - Real World Problem Representation." *CodeCrucks*, 8 June 2022, <https://codecrucks.com/real-world-fuzzy-set-example/>.

*Sci-Hub | Fuzzy Sets. Information and Control*, 8(3), 338–353 | 10.1016  
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