

Lab 1

1. Write a program that takes two or more sets as input and produces set operations like union, intersection, difference and symmetric difference as its output.
2. Write a program that takes two or more sets as input and produces their Cartesian product as output.
3. Write a program that takes a real number and produces its ceiling and floor integers as output.
4. Write a program that takes name and age of a 5 persons as an input and gives the degree of membership of the person as its output according to following membership functions.

a. Degree of membership = 1 if $\text{age} \leq 20$

Degree of membership = $(30 - \text{age})/10$ if $\text{age} > 20$ and $\text{age} \leq 30$

Degree of membership = 0 if $\text{age} > 30$

b. Degree of membership = 1 if $\text{age} \leq 15$

Degree of membership = $(35 - \text{age})/20$ if $\text{age} > 15$ and $\text{age} \leq 35$

Degree of membership = 0 if $\text{age} > 35$

Perform set operations according to rules of fuzzy sets, on these

two sets.