

Example: Logical Operations (cont)

Given:

X	1	2	3	4	5	6	7	8	9
Universal set	1	1	1	1	1	1	1	1	1
A	1	1	0.8	0.6	0.2	0	0	0	0
B	0	0	0.4	0.8	1	0.8	0.4	0	0
C	0	0	0	0	0.3	0.6	1	0.5	0
D	0.2	0.6	1	0.7	0.2	0	0	0	0
Empty Set	0	0	0	0	0	0	0	0	0

Obtain:

X	1	2	3	4	5	6	7	8	9
not A and B	0	0	0.2	0.4	0.8	0.8	0.4	0	0
not A or B	0	0	0.4	0.8	1	1	1	1	1
B and C	0	0	0	0	0.3	0.6	0.4	0	0
B and D	0	0	0.4	0.7	0.2	0	0	0	0
B and C and D	0	0	0	0	0.2	0	0	0	0
B and (C or D)	0	0	0.4	0.7	0.3	0.6	0.4	0	0
not B or not C	1	1	1	1	0.7	0.4	0.6	1	1