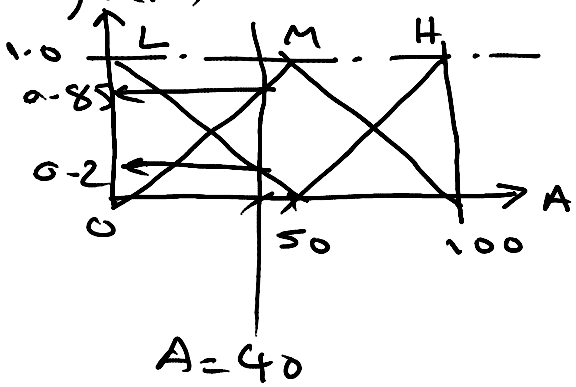
Saturday, January 23, 2016
4:24 AM

Q2

step1 Fuzzification.

$A = 40$

$\mu(A)$



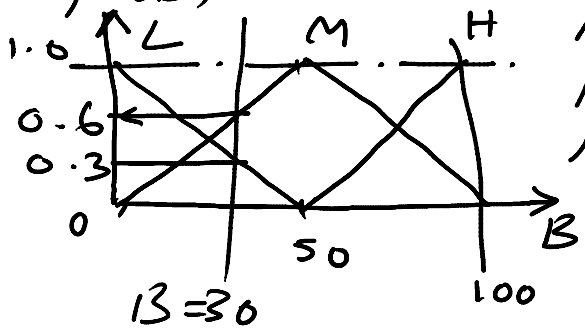
$\mu_L(A=40) = 0.2$

$\mu_M(A=40) = 0.85$

$\mu_H(A=40) = \emptyset$

$B = 30$

$\mu(B)$



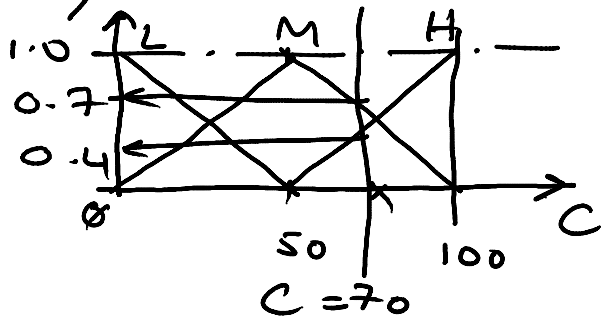
$\mu_L(B=30) = 0.3$

$\mu_M(B=30) = 0.6$

$\mu_H(B=30) = \emptyset$

$C = 70$

$\mu(C)$



$\mu_L(C=70) = \emptyset$

$\mu_M(C=70) = 0.7$

$\mu_H(C=70) = 0.4$

step2 Inference

R1, $\omega_1 = \min(\mu_L(A=40), \mu_M(B=30), \mu_H(C=70))$

$= \omega_1 \overline{L}$

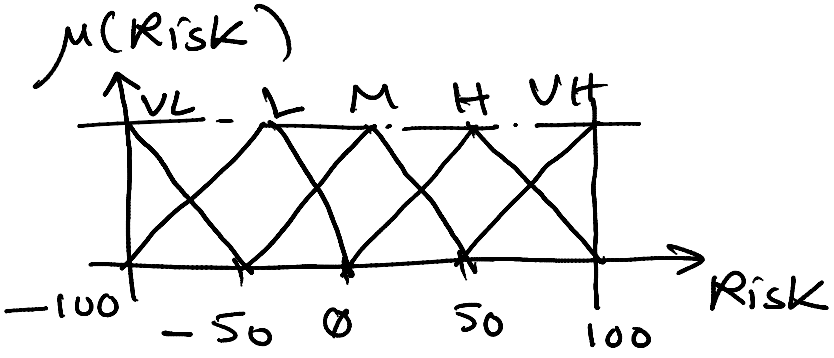
R2 $w_2 = \max(\mu_M(A=40),$

$(\min(\mu_L(B=30), \mu_H(C=70)))$

$= w_2 \bar{M}$

Step3 Defuzzification

RISK



$\bar{L} = -50, \quad \bar{M} = 0$

$\Rightarrow Risk = \dfrac{w_1 \bar{L} + w_2 \bar{M}}{w_1 + w_2}$

$= 2$