**Computational Intelligence Lab**

**Assignment - 4**

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IT - B5 36

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**Write a program in MATLAB to plot various membership functions.**

1. Triangular Membership Function
2. Trapezoidal Membership Function
3. Bell-Shaped Membership Function
4. **Triangular Membership Function**

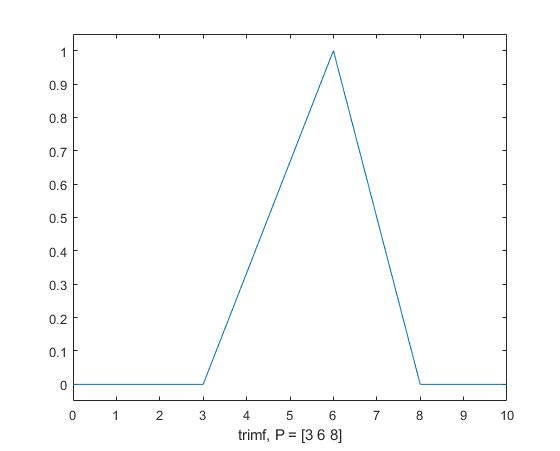
x = 0:0.1:10;

y = trim(x,[3 6 8]);

plot(x,y)

xlabel('trim, P = [3 6 8]')

ylim([-0.05 1.05]

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1. **Trapezoidal Membership Function**

x = 0:0.1:10;

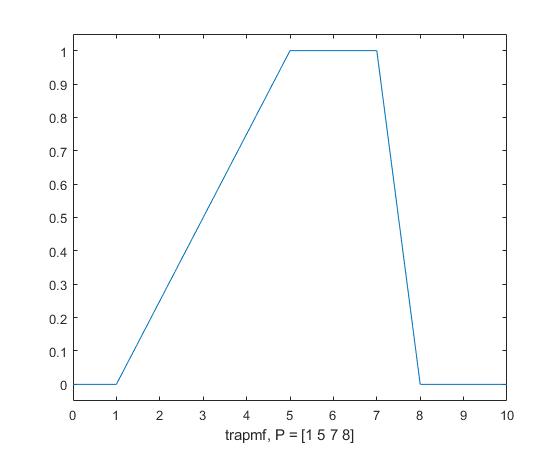
y = trapmf(x,[1 5 7 8]);

plot(x,y)

xlabel('trapmf, P = [1 5 7 8]')

ylim([-0.05 1.05])

**Output-**

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1. **Bell-Shaped Membership Function**

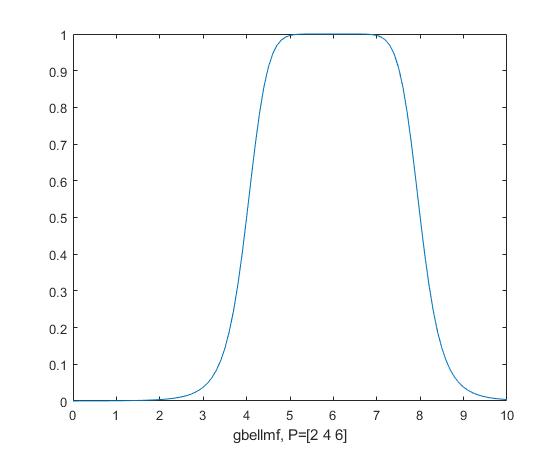
x = 0:0.1:10;

y = gbellmf(x,[2 4 6]);

plot(x,y)

xlabel('gbellmf, P=[2 4 6]')

**Output**

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