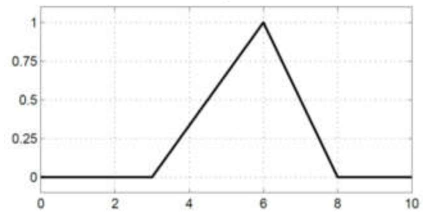
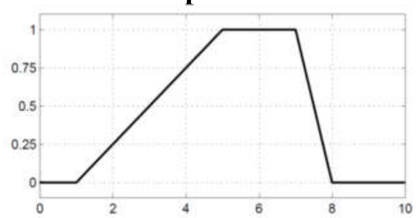
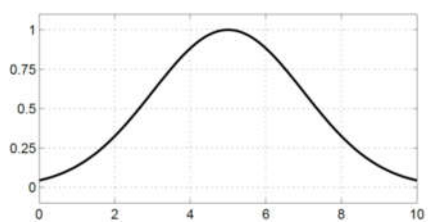
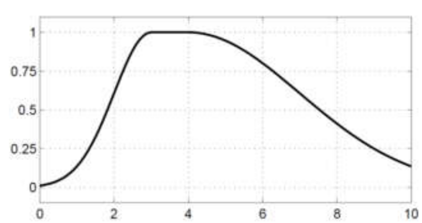
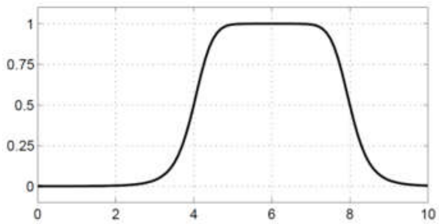
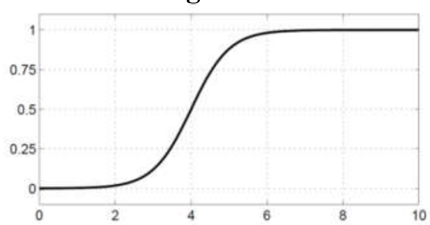
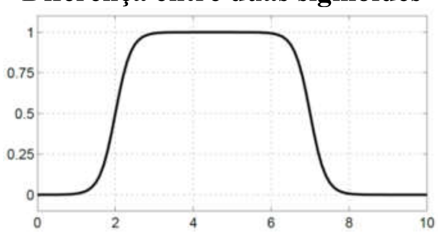
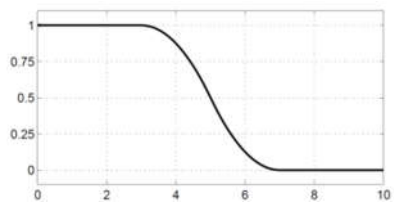
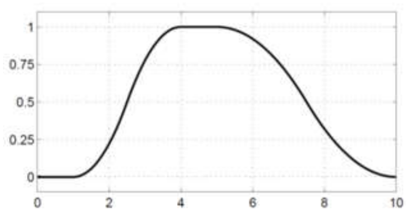
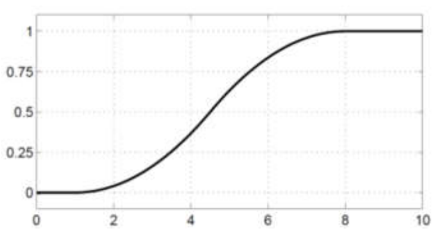
Tabela 1: Funções de pertinência assumidas na teoria de conjuntos *fuzzy*.

Função de Pertinência	Forma Algébrica
Triangular  trimf, P = [$\boldsymbol{a\ b\ c}$] = [3 6 8]	$\boldsymbol{f(x;a,b,c)=\begin{cases}0, & x\le a\\ \dfrac{x-a}{b-a}, & a\le x\le b\\ \dfrac{c-x}{c-b}, & b\le x\le c\\ 0, & c\le x\end{cases}}$
Trapezoidal  trapmf, P = [$\boldsymbol{a\ b\ c\ d}$] = [1 5 7 8]	$\boldsymbol{f(x;a,b,c,d)=\begin{cases}0, & x\le a\\ \dfrac{x-a}{b-a}, & a\le x\le b\\ 1, & b\le x\le c\\ \dfrac{d-x}{d-b}, & c\le x\le d\\ 0, & c\le x\end{cases}}$
Gaussiana  gaussmf, P = [$\boldsymbol{\sigma\ c}$] = [2 5]	$\boldsymbol{f(x;\sigma,c)=e^{\frac{-(x-c)^2}{2\sigma^2}}}$
***Gaussiana combinada**  gauss2mf, P = [$\boldsymbol{\sigma_1, c_1, \sigma_2, c_2}$] = [1 3 3 4]	***Forma esquerda:*** $\boldsymbol{f(x;\sigma_1,c_1)=e^{\frac{-(x-c_1)^2}{2\sigma_1{}^2}}}$ ***Forma direita:*** $\boldsymbol{f(x;\sigma_2,c_2)=e^{\frac{-(x-c_2)^2}{2\sigma_2{}^2}}}$

* Na função gaussiana combinada, a primeira função, especificada por $\boldsymbol{\sigma_1}$ e $\boldsymbol{c_1}$, determina a forma da curva mais à esquerda. A segunda função especificada por $\boldsymbol{\sigma_2}$ e $\boldsymbol{c_2}$ e determina a forma da curva mais à direita.

Função de Pertinência	Forma Algébrica
Sino  gbellmf, P = [$\boldsymbol{a}$ $\boldsymbol{b}$ $\boldsymbol{c}$] = [2 4 6]	$f(x; a, b, c) = \dfrac{1}{1 + \left\lvert \dfrac{x - c}{a} \right\rvert^{2b}}$
Sigmóide  sigmf, P = [$\boldsymbol{a}$ $\boldsymbol{c}$] = [2 4]	$f(x, a, c) = \dfrac{1}{1 + e^{-a(x-c)}}$
Diferença entre duas sigmóides  dsigmf, P = [$\boldsymbol{a_1}, \boldsymbol{c_1}, \boldsymbol{a_2}, \boldsymbol{c_2}$] = [5 2 5 7]	$f(x; a, c) = \dfrac{1}{1 + e^{-a(x-c)}}$ [1]*F = f1(x; a_1, c_1) - f2(x; a_2, c_2)*
Produto de duas sigmóides  psigmf, P = [$\boldsymbol{a_1}, \boldsymbol{c_1}, \boldsymbol{a_2}, \boldsymbol{c_2}$] = [2 3 −5 8]	$f(x; a, c) = \dfrac{1}{1 + e^{-a(x-c)}}$ [2]*F = f1(x; a_1, c_1) X f2(x; a_2, c_2)*

[1] Representa a diferença entre as funções explicitadas.
[2] Representa o produto das funções explicitadas.

Função de Pertinência	Forma Algébrica
Forma de Z  zmf, P = [***a b***] = [3 7]	$f(x;a,b) = \begin{cases} 1, & x \le a \\ 1-2\left(\frac{x-a}{b-a}\right)^2, & a \le x \le \frac{a+b}{2} \\ 2\left(\frac{x-a}{b-a}\right)^2, & \frac{a+b}{2} \le x \le b \\ 0, & x \ge b \end{cases}$
Forma de Π  pimf, P = [***a b c d***] = [1 4 5 10]	$f(x;a,b,c,d) = \begin{cases} 0, & x \le a \\ 2\left(\frac{x-a}{b-a}\right)^2, & a \le x \le \frac{a+b}{2} \\ 1-2\left(\frac{x-a}{b-a}\right)^2, & \frac{a+b}{2} \le x \le b \\ 1, & b \le x \le c \\ 1-2\left(\frac{x-c}{d-c}\right)^2, & c \le x \le \frac{c+d}{2} \\ 2\left(\frac{x-d}{d-c}\right)^2, & \frac{c+d}{2} \le x \le d \\ 0, & x \ge d \end{cases}$
Forma de S  smf, P = [***a b***] = [1 8]	$f(x;a,b) = \begin{cases} 0, & x \le a \\ 2\left(\frac{x-a}{b-a}\right)^2, & a \le x \le \frac{a+b}{2} \\ 1-2\left(\frac{x-b}{b-a}\right)^2, & \frac{a+b}{2} \le x \le b \\ 1, & x \ge b \end{cases}$