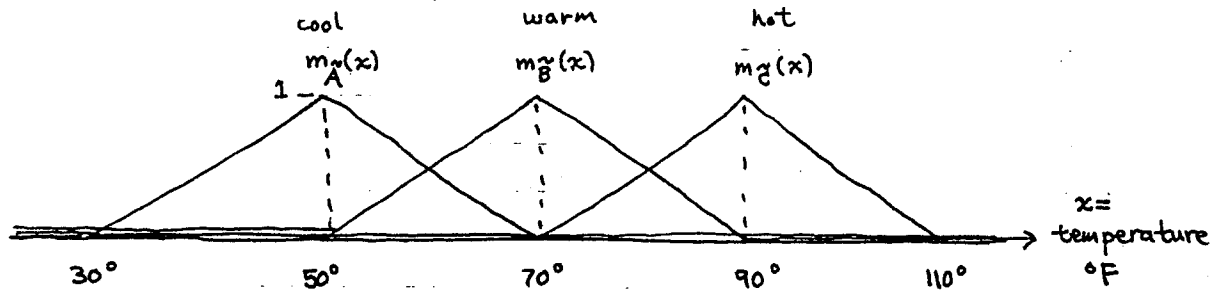


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ex.: Consider the following membership functions for the following sets:

$\tilde{A} \equiv$ cool weather
 $\tilde{B} \equiv$ warm weather
 $\tilde{C} \equiv$ hot weather



We have the support sets: $S(\tilde{A}) = \{x \mid 30^\circ < x < 70^\circ\}$

$$S(\tilde{B}) = \{x \mid 50^\circ < x < 90^\circ\}$$

$$S(\tilde{C}) = \{x \mid 70^\circ < x < 110^\circ\}$$

note: Each of these fuzzy sets $\tilde{A}, \tilde{B}, \tilde{C}$ is normal:

$$m_{\tilde{A}}(50^\circ) = 1, \quad m_{\tilde{B}}(70^\circ) = 1, \quad m_{\tilde{C}}(90^\circ) = 1.$$

comment: This example typifies the membership functions we use for fuzzy logic. The membership functions cover the domain of interest - in this case from $x=30^\circ$ to $x=110^\circ$. They also overlap so that one begins when another has reached its peak.