

Let  $A(x)$  be a fuzzy set of speed limitation on a highway, defined by the following membership functions:

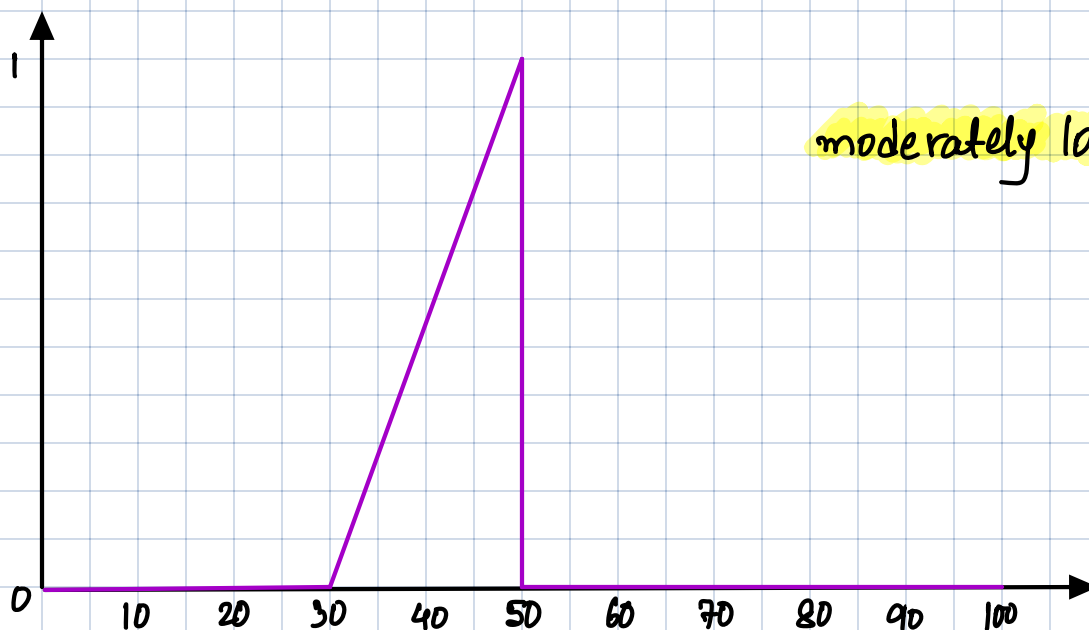
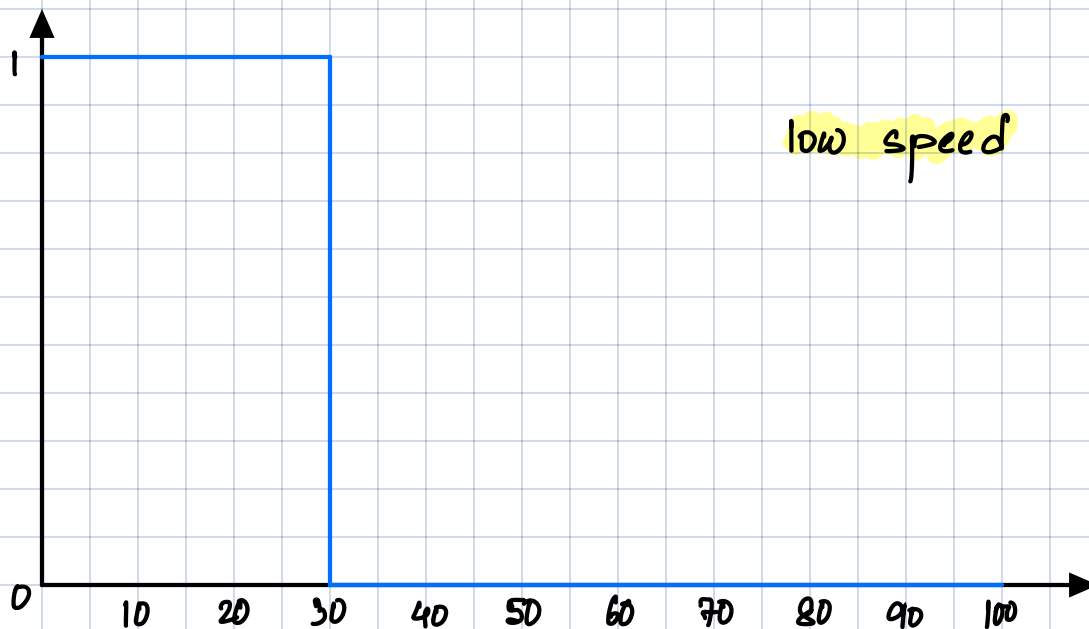
Fuzzy set A: "Low speed limit"

$$\mu_A(x) = 1, \text{ if } x < 30 \text{ (low speed)}$$

$$= \frac{x-30}{50-30}, \text{ if } 30 \leq x < 50 \text{ (moderately low speed)}$$

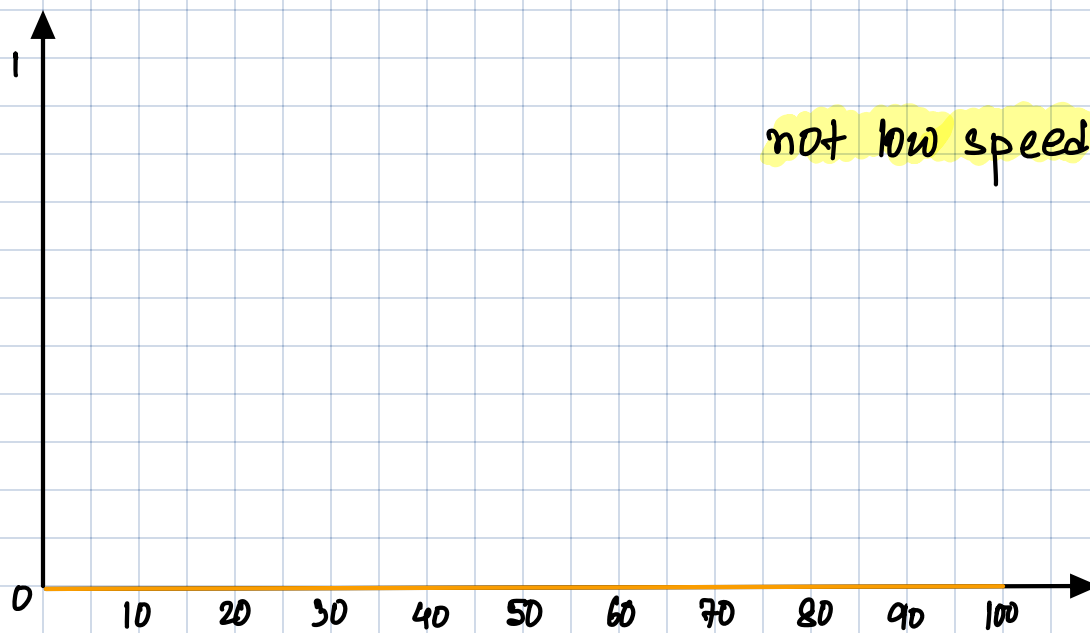
$$= \frac{x-50}{70-50}, \text{ if } 50 \leq x < 70 \text{ (increasing speed)}$$

$$= 0, \text{ if } x \geq 70 \text{ (not low speed)}$$



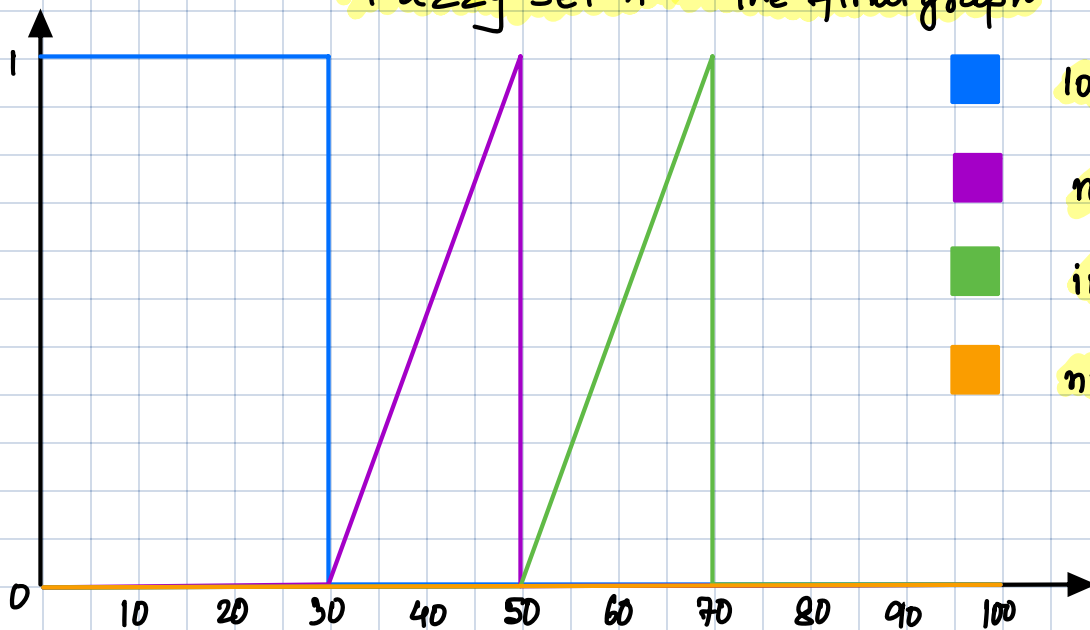


increasing speed



not low speed

"Fuzzy Set A" - The final graph



low speed



moderately low speed



increasing speed



not low speed