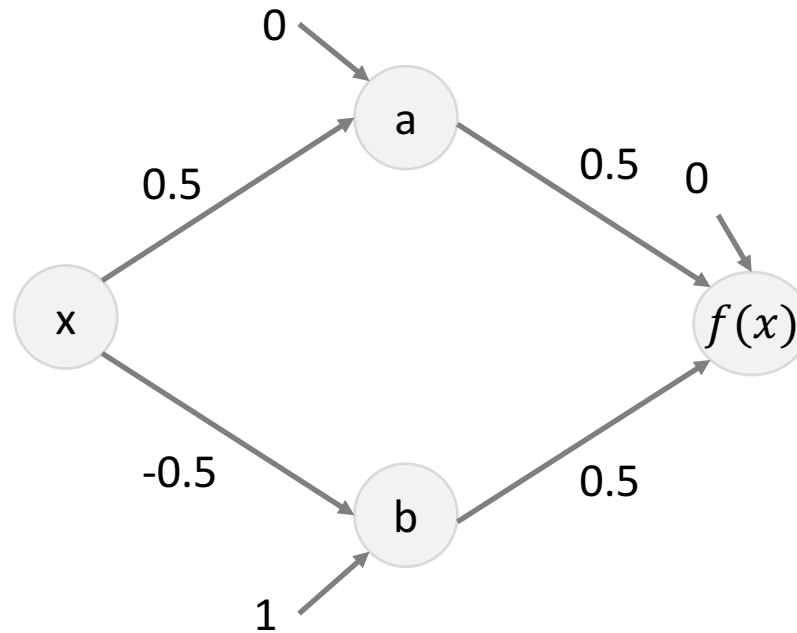


# Interval Analysis of Fully-Connected Neural Networks



1)  $f(x_1) = 0.5, f(x_2) = 0.5$

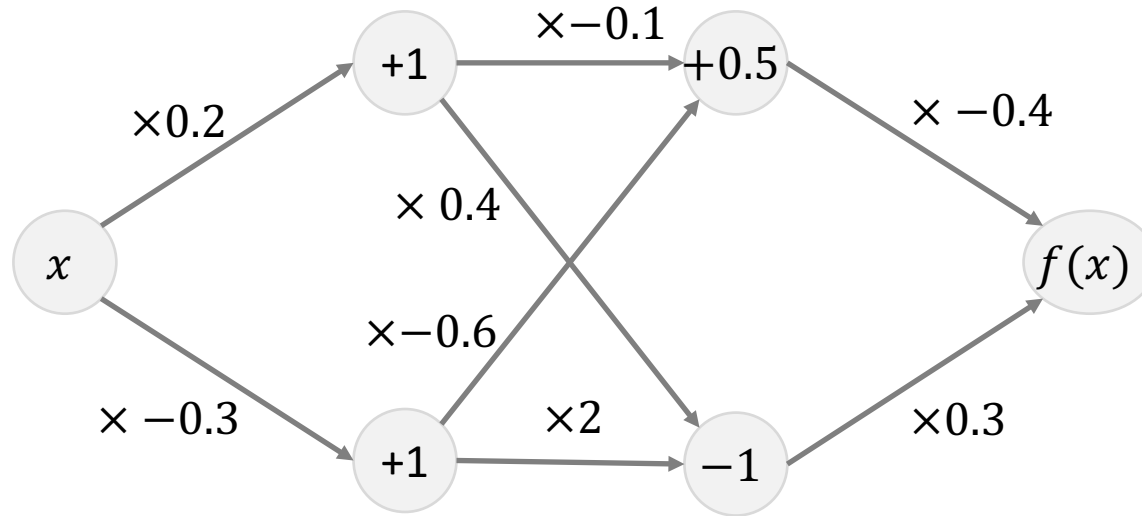
2)  $f([1,2]) = [0.5, 0.5]$

3)  $f([1,2]) = [0.25, 0.75]$

4) Yes (for example, 0.25)

5) No (because 0.25 is a possible output that is smaller than 0.5)

# Bigger Example



1)  $f([0.2, 0.3]) = [0.3708, 0.3912]$

$f([1, 1.3]) = [0.2044, 0.2712]$

2) No