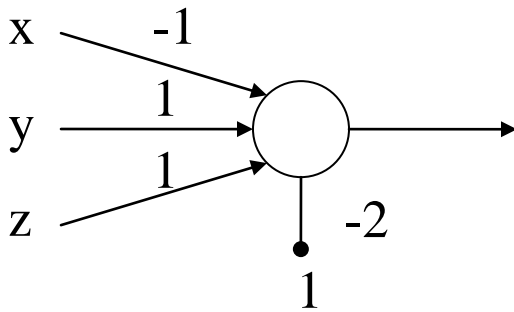
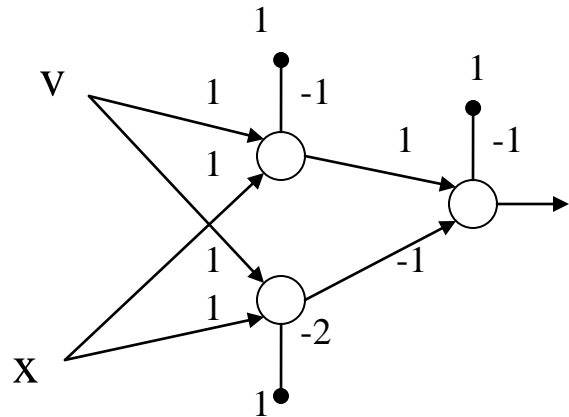
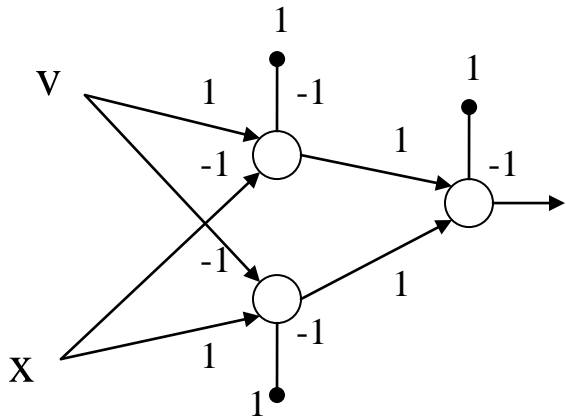


CSE 5526 Homework 1 Solution

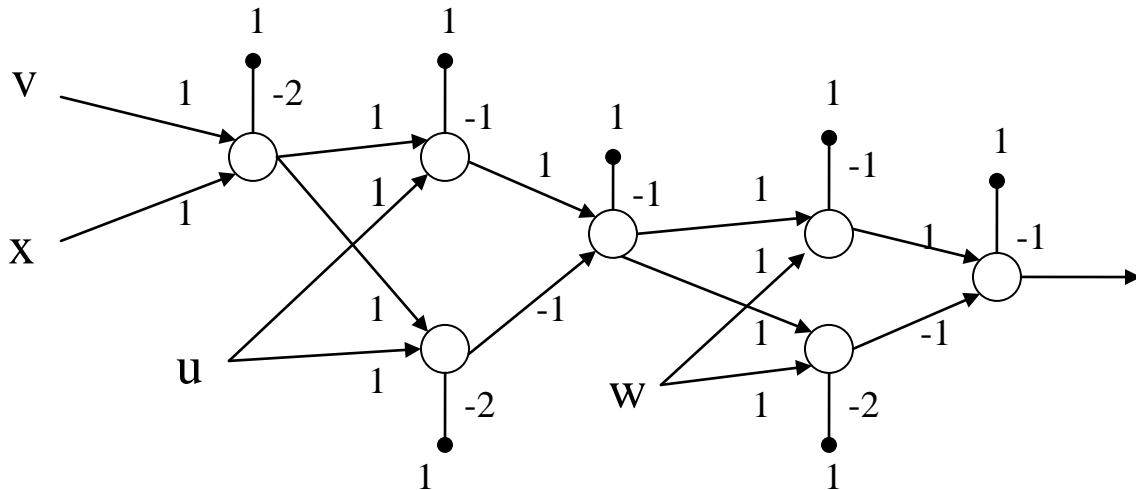
1. (3 points)



2. a) $z = v \oplus x = v\bar{x} + \bar{v}x$ (2 points)
or $=(v+x)(\bar{v}x)$



b) $y = vx \oplus u \oplus w$ (3 points)



3. a) Yes - see the diagram below. (1 point)

b) No. With the 3 samples of the 3 classes on the same line (see diagram), it is not possible to find a line to separate C_2 from both C_1 and C_3 . (1 point)

