

$$a_1^{(1)} = g(0.5 \cdot 1 + 0.4 \cdot 1 + 0.8 \cdot -1) = g(0.1) = 0.525$$

$$a_2^{(1)} = g(0.9 \cdot 1 + 1.0 \cdot 1 + -0.1 \cdot -1) = g(2) = 0.881$$

$$a_1^{(2)} = g(-1.2 \cdot 0.525 + 1.1 \cdot 0.881 + 0.3 \cdot -1) = g(0.032) = 0.508$$

$$0 = a_1^{(2)} = 0.508$$

$$\delta = (y - a) a (1 - a) = (0 - 0.508) \cdot 0.508 (1 - 0.508) = -0.127$$

$$\delta_1^{(1)} = (-1.2 \cdot -0.127) 0.525 (1 - 0.525) = 0.038$$

$$\delta_2^{(1)} = (1.1 \cdot -0.127) 0.881 (1 - 0.881) = -0.015$$

$$\text{new } w_{11}^{(2)} = -1.2 + 0.1 \cdot -0.127 \cdot 0.525 = -1.207$$

$$\text{new } w_{12}^{(2)} = 1.1 + 0.1 \cdot -0.127 \cdot 0.881 = 1.089$$

$$\text{new } w_{13}^{(2)} = 0.3 + 0.1 \cdot -0.127 \cdot -1 = 0.313$$

$$\text{new } w_{11}^{(1)} = 0.5 + 0.1 \cdot 0.038 \cdot 1 = 0.538$$

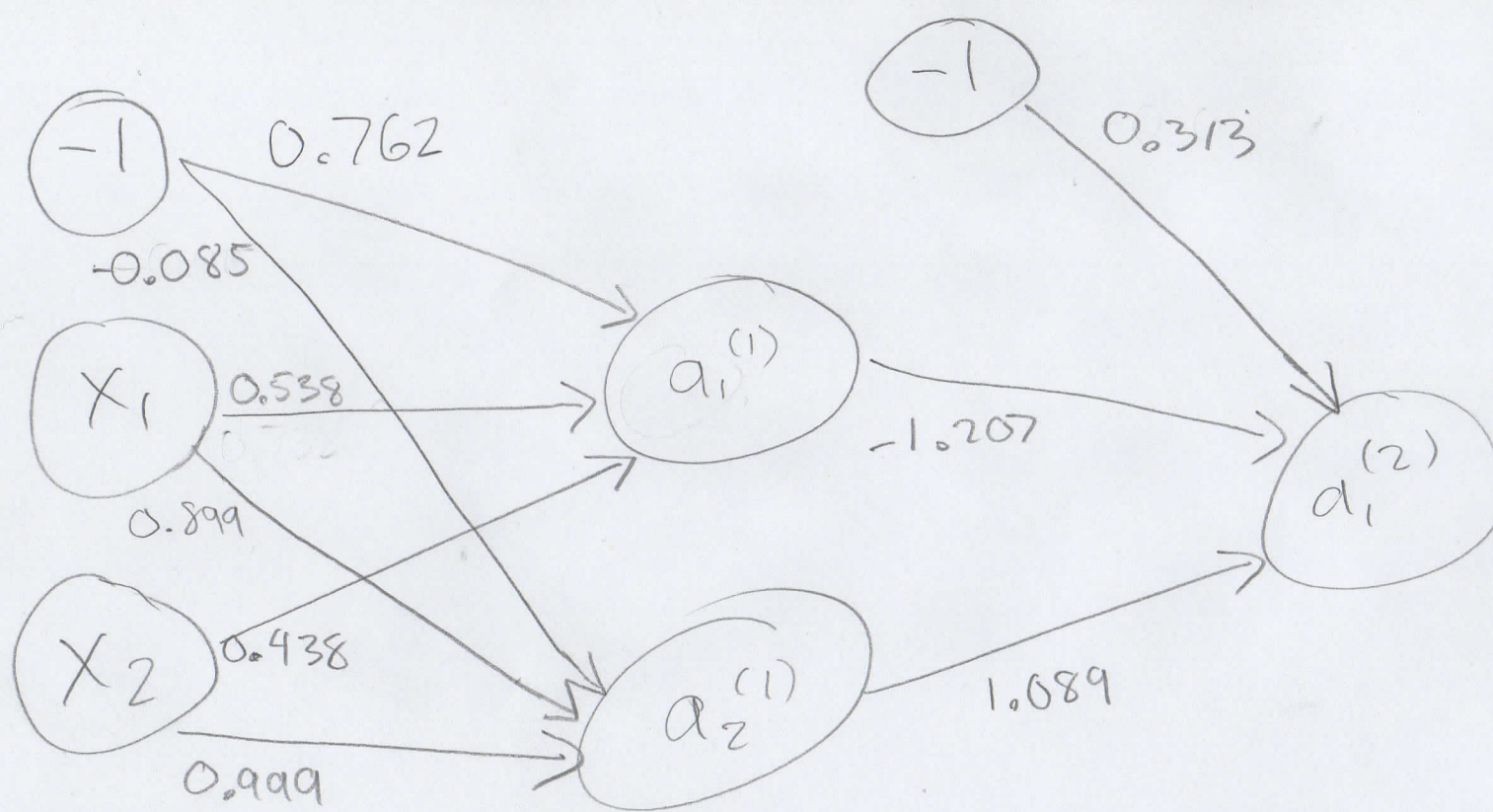
$$\text{new } w_{12}^{(1)} = 0.4 + 0.1 \cdot 0.038 \cdot 1 = 0.438$$

$$\text{new } w_{13}^{(1)} = 0.8 + 0.1 \cdot 0.038 \cdot -1 = 0.762$$

$$\text{new } w_{21}^{(1)} = 0.9 + 0.1 \cdot -0.015 \cdot 1 = 0.899$$

$$\text{new } w_{22}^{(1)} = 1.0 + 0.1 \cdot -0.015 \cdot 1 = 0.999$$

$$\text{new } w_{23}^{(1)} = -0.1 + 0.1 \cdot -0.015 \cdot -1 = -0.085$$



UPDATED NETWORK