$$Y = X\beta + \varepsilon \tag{1}$$

$$Y = f(X) + \varepsilon \tag{2}$$

$$Y = \sum_{i=1}^{N} \gamma_i \varphi_i(X\beta_i) + \varepsilon \tag{3}$$

$$Y = \sum_{j=1}^{M} \eta_j \varphi_j \left(\sum_{i=1}^{N} \gamma_i \varphi_i(X\beta_i) \right) + \varepsilon \tag{4}$$

$$\varphi = \frac{1}{1 + e^{-x}} \tag{5}$$