4)

$$b_1 = \begin{cases} 0 & x<0 \\ 1 & 0 \le x < 1 \\ -x & 1 \le x \le 2 \end{cases} = \begin{matrix} 1-(x-1) \\ 1-x+1 = -x \end{matrix} \quad ; \quad b_2 = 0 \text{ for } x \in [-2,2]$$

$$\hat{y}_i = \hat{\beta}_0 + \hat{\beta}_1 b_1(x) + \hat{\beta}_2 \overset{=0}{b_2(x)} = 1 + b_1(x) = \begin{cases} 1 \; ; & x<0 \\ 2 \; ; & 0 \le x < 1 \\ -x+1 \; ; & 1 \le x \le 2 \end{cases}$$