

12 a) $f(x) = 2(x-1)^2 - 2$

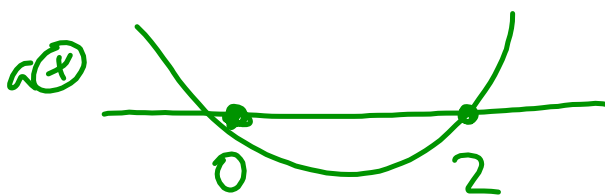
$f(x) \geq 0$
 $f(x) \leq 0$ } Sign

① zeros

$$-\frac{K}{a} = \frac{-(-2)}{2} = 1$$

a (+)

$$\begin{aligned} x_1 &= 1 - \sqrt{1} & x_2 &= 1 + \sqrt{1} \\ &= 1 - 1 & &= 1 + 1 \\ &= 0 & &= 2 \end{aligned}$$



$$f(x) \geq 0$$

$$]-\infty, 0] \cup [2, \infty[$$

$$f(x) \leq 0 \text{ over } [0, 2]$$