3) Implement the function

$$f(x_1, x_2, x_3, x_4) = x_1\overline{x}_4 + x_1x_3 + x_3x_4 + \overline{x}_1x_2\overline{x}_3$$

using **only** 2-to-1 multiplexers. Minimize the number of multiplexers used.

For this Problem the inputs are x_1, x_2, x_3, x_4 only.
$\overline{x}_1, \overline{x}_2, \overline{x}_3, \overline{x}_4$ are not available as inputs