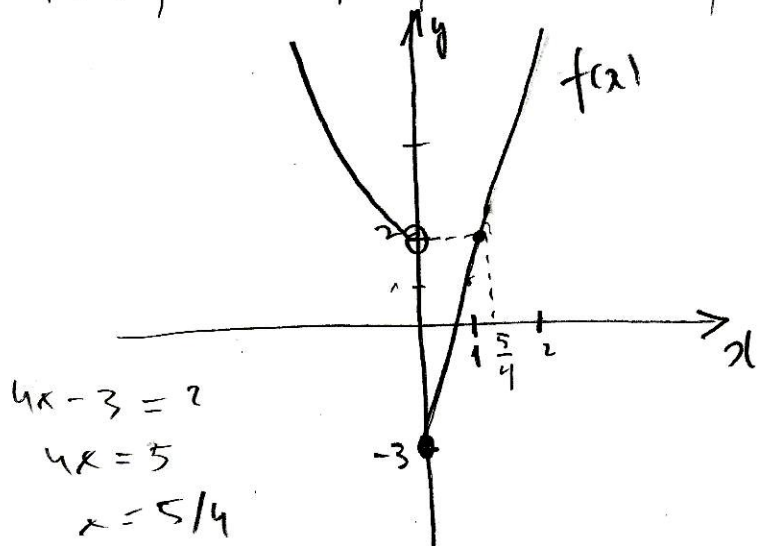


$$(g \circ f)(x) = \begin{cases} f(x) + 1 & \text{se } f(x) > 2 \\ 1 - f^2(x) & \text{se } f(x) \leq 2 \end{cases}$$

Mos, do gráfica de $f(x)$ temos



$$f(x) > 2 \left. \begin{array}{l} \text{se } x < 0 \\ \text{ou } x > \frac{5}{4} \end{array} \right\}$$

$$f(x) \leq 2 \left. \begin{array}{l} \text{se } 0 \leq x \leq \frac{5}{4} \end{array} \right\}$$

Daí,

$$\text{se } \underline{x < 0} \text{ temos } f(x) = x^2 - 3x + 2$$

$$\text{daí, } f(x) + 1 = x^2 - 3x + 2 + 1 \\ = \underline{x^2 - 3x + 3}$$

$$\text{se } \underline{x > \frac{5}{4}} \text{ temos } f(x) = 4x - 3$$

$$\text{daí, } f(x) + 1 = 4x - 3 + 1 = \underline{4x - 2}$$

$$\text{se } \underline{0 \leq x \leq \frac{5}{4}} \text{ temos } f(x) = 4x - 3$$

$$\text{daí } 1 - f^2(x) = 1 - (4x - 3)^2 = 1 - 16x^2 + 24x - 9 \\ = \underline{-16x^2 + 24x - 8}$$