MATH 464, HW 3

Compute Fourier Transforms of the following functions:

$$f_1(x) = \max(b - |ax|, 0), \quad a, b > 0$$

$$f_2(x) = \max(1 - |x - c|, 0)$$

$$f_3(x) = \begin{cases} 1, & x \in [-a, a] \\ 0, & x \in (-\infty, -a - 1] \cup [a + 1, \infty) \\ linear & otherwise \end{cases}$$

$$f_4(x) = \max(1 - x^2, 0)$$