Problem 2.36

We are given the Fourier transform

$$G(f) = \text{sinc}(f)$$

Using the transform pair

$$R_g(\tau) \rightleftharpoons |G(f)|^2$$

we may therefore express the autocorrelation function $R_g(\tau)$ as the inverse Fourier transform of $\text{sinc}^2(f)$. From Eq. (2.43) in the text, we readily deduce that $R_g(\tau)$ has the triangular form