Seminar 3
Statistical and temporal averages
DEDP

1. Compute the average value, the average squared value, and the variance for a stationary random process with the distribution of a sample:
   - $w_1(x) = \mathcal{U}[a, b]$ for some $a, b \in \mathbb{R}$
   - $w_1(x) = \frac{1}{2} - \frac{1}{8}x$. For this one, also plot the function and check that its integral really is 1

2. Compute the temporal average value, the temporal average squared value, the temporal variance, and the temporal autocorrelation function for the following realization of a finite-length random process:

$$v = [-1, 2, -1, 2, -1, 2, -1, 2, -1, 2]$$