If we follow the algorithm given in the whatsapp chat by you, for problem 2,

$$S_1 = \sum_{i=0}^{10} n_i x_i$$

and

$$S_2 = \sum_{i=0}^{10} n_i f\left(x_i\right) x_i.$$

Since the samples are uniform, all n_i are equal, so we can take it outside the summation.

$$\frac{S_2}{S_1} = \frac{\sum_{i=0}^{10} n_i f\left(x_i\right) x_i}{\sum_{i=0}^{10} n_i x_i} = \frac{\sum_{i=0}^{10} f\left(x_i\right) x_i}{\sum_{i=0}^{10} x_i}.$$

Which makes no sense and is approximately 0.606024 (computated in Mathematica). However, if instead of summing the values we only sum the frequencies, we do indeed get the integral

$$\frac{\sum_{i=0}^{10} n_i f\left(x_i\right)}{\sum_{i=0}^{10} n_i} = \frac{\sum_{i=0}^{10} f\left(x_i\right)}{\sum_{i=0}^{10} 1} = \frac{1}{N} \sum_{i=0}^{10} f\left(x_i\right)$$

Which is the simpliest integration method already done in the lab before. So for this problem I follow the method of the first problem to get the correct result.