

Submit your Jupyter notebook with the answers to gradescope by 10:50am.

Consider the quadrature rule

$$\int_{-1}^{+1} f(x)dx \approx w_0f(x_0) + w_1f(x_1) + w_2f(x_2).$$

1. Write the conditions on the weights and the points of this rule so the degree of precision is as high as possible.
2. What is the degree of precision of this rule? Justify your answer.