# Questions for Tutorial-5: Fourier Series Using SageMath

Q.1 Find all the Fourier Coefficients and Fourier Series for the following functions. Also plot the graph of the function and the Fourier series

(i) for and

(ii) in for and

Q.2 Find the Half range cosine series for for n=20 . Also plot the graph of the function and the cosine series.

Q.3 Find the Half range sine series for for n=15 . Also plot the graph of the function and the sine series.

Q.4 Find the Fourier series (n=15) , a10 and b15 for in .