FOURIER ANALYSIS & METHODS GOALS FOR 2020.01.29

JULIE ROWLETT

1. Learning objectives

Our goals for today are that:

(1) You will be able to use the theorem on the convergence of Fourier series to compute nifty sums like
$$\sum_{n \geq 1} \frac{1}{n^2}.$$

(2) You will be able to relate the Fourier series of a function and the Fourier series of its derivative.

Ready, set, let's go!