

Introduction to Scientific Computing Software HW1
Student ID : < **Student ID** >

Please use MuPAD to solve following problems :

1. $\sum_{k=1}^{\infty} (-1)^{k+1} \frac{k+1}{k^2}$

2. Plot $f(x) = \frac{\sin \pi x}{\pi x}, x \in [-5\pi, 5\pi]$

3. $\int_{-\infty}^{\infty} \frac{\sin \pi x}{\pi x} dx$

4. Calculate $31^{< \mathbf{ID} >} \pmod{17}$