

## 1 Power Series Practice

- (a) Calculate the  $n = 0, 1, 2, 3, 4$  coefficients of the power series for  $\cos z$  expanded around  $z = \pi$ . Using these coefficients, find a power series approximation for this function.
- (b) Plot both the original function and your approximation.
- (c) For what values of  $z$  is your approximation “good”?