Student ID:

Student Name:

Serial Number:

Math 102, Section 16
Summer 2017, Term 162

Quiz 6
Version A

Instructions: Show Your Work!

1. (4 pts) Find the radius and interval of convergence of the power series

$$\sum_{n=1}^{\infty} \frac{(2x-1)^n}{n^3}.$$

2. (4 pts) Find the Maclaurin series for the function

$$f(x) = \frac{1-\cos x}{x^2}.$$

3. (4 pts) Find the sum of the series

$$\sum_{n=0}^{\infty} \frac{\pi^n}{2^n(n+1)!}.$$

Student ID:

Student Name:

Serial Number:

Math 102, Section 38
Summer 2017, Term 162

Quiz 6
Version B

Instructions: Show Your Work!

1. (4 pts) Find the radius and interval of convergence of the power series

$$\sum_{n=0}^{\infty} \frac{(-3)^{n+1}(2x+1)^n}{\sqrt{n+1}}.$$

2. (4 pts) Find the Maclaurin series for the function

$$f(x) = \frac{x - \sin x}{x^2}.$$

3. (4 pts) Find the sum of the series

$$\sum_{n=0}^{\infty} \frac{\pi^n}{2^n (n+1)!}.$$