Student ID:

Student Name:

Serial Number:

Math 102, Section 1
Summer 2017, Term 163
**Instructions:** Show Your Work!

Quiz 6
Version A

**1.** (3 pts) Write the power series representation of the function $f(x) = \ln(2 - x)$ and determine the interval of convergence.

**2.** (3 pts) Find the Taylor series for

$$f(x) = e^{\frac{x}{2}} \quad \text{at} \quad a = 4.$$

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

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

**4.** (3 pts) Find the fourth term of the Maclaurin series for

$$f(x) = \frac{1}{\sqrt{4 - x}}.$$

Student ID:

Student Name:

Serial Number:

Math 102, Section 4
Summer 2017, Term 163
**Instructions:** Show Your Work!

Quiz 6
Version B

**1.** (3 pts) Write the power series representation of the function $f(x) = \ln(2 - x)$ and determine the interval of convergence.

**2.** (3 pts) Find the Taylor series for

$$f(x) = e^{\frac{x}{2}} \quad \text{at} \quad a = 4.$$

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

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

**4.** (3 pts) Find the fourth term of the Maclaurin series for

$$f(x) = \frac{1}{\sqrt{4 - x}}.$$