Student ID:

Student Name:

Serial Number:

Math 102, Section 6
Summer 2016, Term 153

Quiz 3
Version A

Instructions: Show Your Work!

1. (3 pts) Write out, **without evaluating the coefficients**, the form of the partial fraction decomposition of the function

$$f(x) = \frac{x^6 + 2x^3 + 1}{(x+1)(x^2+1)(x^2-1)^2}$$

2. (3 pts) Integrate

$$\int \frac{dx}{\sqrt{x}\sqrt{1-x}}$$

3. (4 pts) Find the exact area of the surface obtained by rotating the curve $x = 1 + 2y^2$, $1 \leq y \leq 2$ about the $x-$axis.

Student ID:

Student Name:

Serial Number:

Math 102, Section 8
Summer 2016, Term 153

Quiz 3
Version B

Instructions: Show Your Work!

1. (3 pts) Write out, **without evaluating the coefficients**, the form of the partial fraction decomposition of the function

$$f(x) = \frac{x^6 + 2x^3 + 1}{(x+1)(x^2+1)(x^2-1)^2}$$

2. (3 pts) Integrate

$$\int \frac{dx}{\sqrt{x}\sqrt{1-x}}$$

3. (4 pts) Find the exact area of the surface obtained by rotating the curve $y = \sqrt[3]{x}$, $1 \leq y \leq 2$ about the $y-$axis.