Student ID:

Student Name:

MATH102, Section 1 Spring 2018, Term 172 Quiz 2 Version A

Serial Number:

**Instructions:** Show Your Work!

1. (3 pts) Evaluate

$$\int_0^1 \frac{dx}{\left(1 + \sqrt{x}\right)^4}$$

**2.** (3 pts) If

$$\int_0^1 \frac{dx}{(1+\sqrt{x})^4}$$

$$\int_0^4 e^{(x-2)^4} dx = k,$$

$$\int_0^4 x e^{(x-2)^4} dx$$

find the value of

$$\int_{0}^{4} x e^{(x-2)^{4}} dx$$

**3.** (4 pts) Sketch the region enclosed by  $y = x^4$  and y =2 - |x| and find its area.