Quiz 5A, Calculus 2
Dr. Graham-Squire, Spring 2013

Name: _____

1. (2 points) Does the series $\sum\limits_{n=1}^{\infty} \dfrac{n^3}{e^{(3/n)}}$ converge or diverge? Justify your reasoning and state which test you use.

2. (2 points) Is the series absolutely convergent, conditionally convergent, or divergent? State what convergence or divergence test(s) you use, and show your work.

$$\sum_{n=8}^{\infty} (-1)^n \frac{\sqrt[3]{n}}{n-7}$$

3. (2 points) Is the series absolutely convergent, conditionally convergent, or divergent? State what convergence or divergence test(s) you use, and show your work.

$$\sum_{n=1}^{\infty} \frac{(-10)^n}{n!}$$

4. (4 points) Find the radius and interval of convergence for the power series.

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