## MATH 107 Quiz 9

Name:\_\_\_\_\_\_\_

Instructions: You must show supporting work to receive full and partial credits. No text book, notes, formula sheets allowed.

1(5pts) Determine if the series is absolutely convergent, conditionally convergent, or divergent.

(a) 
$$\sum_{k=1}^{\infty} (-1)^{k+1} \frac{k^{10}}{k!}$$

(b) 
$$\sum_{k=1}^{\infty} (-1)^{k+1} \frac{\sqrt{k}}{k+1}$$

**2(5pts)** Find the interval and radius of convergence for the power series  $\sum_{k=1}^{\infty} \frac{(-1)^{k+1}}{\sqrt{k}} (x-1)^k$ . (Reminder: Don't forget to determine the end point convergence.)