

236 Quiz 8

April 12, 2011

Name: _____

Name: _____

Name: _____

Work in groups but do NOT split up problems or tasks. You must discuss each problem as a group and agree on a final answer. Hand in one quiz per group.

You may use your hand-written Notebooks but no other materials and no technology at all. Please keep your discussions quiet so as not to disturb or inform other groups.

1. Find the interval of convergence of the series below. Show work clearly. Indicate any points at which convergence is only conditional.

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

2. Find the Taylor series for the function $f(x) = \sin x - \cos x$ at the point $x = \frac{\pi}{4}$. Show work clearly.