

You have 20 minutes to take this quiz. Each problem will be graded for clarity of work as well as correctness, so show all work **clearly and in order**. Circle or otherwise indicate your final answers. Please note that there are problems on both the front and the back of this page.

NO CALCULATORS ON THIS QUIZ.

All of the problems on this quiz are similar to homework problems.

1. (6 points) Find the sum of the series $\sum_{k=3}^{\infty} \frac{1}{2^{k-1}}$.

2. (4 points) The convergence or divergence of the series $\sum \frac{2k+1}{\sqrt{k^5+1}}$ can be determined

using the Limit Comparison Test with the series:

DON'T APPLY THE TEST, JUST NAME THE SERIES YOU WOULD USE FOR COMPARISON.

Turn over for more...

3. (10 points) Determine whether the series $\sum \frac{1}{k 2^k}$ converges or diverges using:

a. (5 pts) The Root Test.

b. (5 pts) The Ratio Test.