

Math 6B: Series “Quiz”

April 19, 2016

Name: _____ Score: NA

Directions: Open book, open note, open neighbor.

Disclaimer: The content and level of difficulty of this quiz are not guaranteed to be in correlation with the midterm nor final examinations in any form.

Determine if the following series converge or diverge. State what test you used to come to your conclusion.

1. $\sum_{n=1}^{\infty} \frac{\arctan n}{n^{1.2}}$

2. $\sum_{n=2}^{\infty} \frac{1}{n \ln n}$

3. $\sum_{n=1}^{\infty} \frac{1}{\sqrt[5]{n}}$

4. $\sum_{n=1}^{\infty} \arctan n$

5. $3 + 2 + \frac{4}{3} + \frac{8}{9} + \dots$

6. $\sum_{n=1}^{\infty} \frac{1}{n^5}$

7. $\sum_{n=1}^{\infty} \frac{1}{\sqrt{n^2 + 1}}$