

# Math 199 CD3 Merit Worksheet 15: More on Series, Comparison Test

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1.

$$\sum_1^{\infty} \frac{\arctan n}{2^n}$$

2.

$$\sum_1^{\infty} \frac{\arctan n}{\sqrt{n}}$$

3.

$$\sum_1^{\infty} \frac{1}{e^n + n^2}$$

4.

$$\sum_1^{\infty} \frac{1}{e^n - n^2}$$

5.

$$\sum_1^{\infty} \frac{\ln n}{n^{3/2}}$$

6.

$$\sum_1^{\infty} \sin(1/n)$$

This one is pretty tricky to find the right series to compare with. Try it and let me know if you want hint

7.

$$\sum_1^{\infty} \frac{1}{n + \sqrt{n}}$$