just checking . . . .

1. Converge or diverge?

$$\sum_{n=1}^{+\infty} \frac{\tan^{-1} n}{n^{1.2}}$$

2. Converge or diverge?

$$1 + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \frac{1}{9} + \cdots$$

3. If the series converges, find its value.

$$\sum_{n=1}^{+\infty} \left[e^{\frac{1}{n}} - e^{\frac{1}{n+1}} \right]$$

4. Converge or diverge?

$$\sum_{n=1}^{+\infty} \ln\left(\frac{n^2+1}{2n^2+1}\right)$$

5. Converge or diverge?

$$\sum_{n=1}^{+\infty} \frac{5^n}{(2n)!}$$

6. Converge or diverge?

$$\sum_{n=1}^{+\infty} \tan\left(\frac{1}{n}\right)$$