Determine whether the series is absolutely convergent, conditionally convergent, or divergent. Calculus: Early Transcendentals 5e by James Stewart

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

2. $\sum_{n=0}^{\infty} \frac{(-10)^n}{n!}$

3. $\sum_{n=1}^{\infty} (-1)^{n-1} \frac{2^n}{n^4}$

4. $\sum_{n=1}^{\infty} \frac{(-1)^{n-1}}{\sqrt[4]{n}}$

5. $\sum_{n=1}^{\infty} \frac{(-1)^n}{n^4}$

6. $\sum_{n=1}^{\infty} \frac{(-1)^n}{(\arctan n)^n}$

7. $\sum_{n=1}^{\infty} (-1)^{n-1} \frac{n}{n^2+1}$

8. $\sum_{n=1}^{\infty} \frac{1}{(2n)!}$

9. $\sum_{n=1}^{\infty} e^{-n} n!$

10. $\sum_{n=2}^{\infty} \frac{(-1)^n}{(\ln n)^n}$

11. $\sum_{n=1}^{\infty} \frac{\sin 4n}{4^n}$

12. $\sum_{n=1}^{\infty} \frac{n(-3)^n}{4^{n-1}}$

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

14. $\sum_{n=1}^{\infty} \frac{10^n}{(n+1)4^{2n+1}}$

15. $\sum_{n=1}^{\infty} \frac{3-\cos n}{n^{2/3}-2}$

16. $\sum_{n=1}^{\infty} \frac{(-1)^n e^{1/n}}{n^3}$

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

18. $\sum_{n=1}^{\infty} (-1)^n \frac{n}{5+n}$