

1. $\sum_{n=1}^{\infty} \frac{n}{\sqrt{n^5 + 1}}$ converges diverges Test:

2. $\sum_{n=1}^{\infty} \frac{n!}{e^n}$ converges diverges Test:

3. $\sum_{n=1}^{\infty} \frac{n^2}{2^n}$ converges diverges Test:

4. $\sum_{n=1}^{\infty} \frac{\sin^2 n}{n^2}$ converges diverges Test:

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

converges diverges Test:

$$6. \sum_{n=1}^{\infty} \frac{2^n}{n}$$

converges diverges Test:

$$7. \sum_{n=1}^{\infty} \frac{1}{n2^n}$$

converges diverges Test:

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

converges diverges Test: