

Convergence Practice

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

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

$$3. \sum_{n=1}^{\infty} \frac{6^n}{n^n}$$

$$4. \sum_{n=1}^{\infty} \frac{n!}{6^n}$$

$$5. \sum_{n=2}^{\infty} \frac{1}{n(\ln n)^2}$$

$$6. \sum_{n=2}^{\infty} \frac{\ln n}{n^3}$$

$$7. \sum_{n=1}^{\infty} \frac{(n+3)!}{n! 3^n}$$

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

$$9. \sum_{n=1}^{\infty} \frac{(n!)^n}{(n^n)^2}$$