

$$2n^3 \geq 1 + n^3 \Rightarrow \sum_{n \geq 1} \frac{n^2}{1+n^3} \geq \frac{1}{2} \sum_{n \geq 1} \frac{1}{n} = \infty$$

$$\sum \frac{1}{2n+2} = +\infty: \quad \sum \frac{2n-1}{6n^2-1} = +\infty: \quad \sum \frac{4n-1}{n^2+3n-2} = +\infty: \quad \sum \frac{2n^2+3}{n^3-1} = +\infty$$

$$\sum \frac{3n-1}{2n^2+1} = +\infty: \quad \sum \frac{n^2+\sqrt{n}+1}{n^3+2\sqrt{n}+2} = +\infty: \quad \sum \frac{2n^2-1}{n^3+2n} = +\infty: \quad \sum \frac{n^{1/3}}{(n+1)^{2/3}} = +\infty$$

$$\sum \frac{n+1}{3n^3+n} < +\infty: \quad \sum \frac{n^2+2n+1}{4n^4-3n} < +\infty: \quad \sum \frac{n^2+1}{3n^4-n^2} < +\infty$$

$$\sum (100)^{-1/n} = +\infty$$

$$\sum \frac{n^2+5}{3^n n^3} < +\infty: \quad \sum \frac{n^5}{2^n+4^n} < +\infty: \quad \sum \frac{n^3+1}{2+3^n} < +\infty: \quad \sum \frac{n^3}{e^n} < +\infty: \quad \sum \frac{2n-1}{2^n} < +\infty$$

$$\sum n \left(\frac{2}{3}\right)^n < +\infty: \quad \sum \frac{5n^3}{3^n+4^n} < +\infty: \quad \sum \frac{n+\sqrt{n}}{2^n} < +\infty: \quad \sum \frac{2^n+n!}{3^n} < +\infty$$

$$\sum \frac{n}{n^3} < +\infty: \quad \sum \frac{n^2}{n+1} = +\infty$$

$$\sum \frac{n^3+1}{n!2^n} < +\infty$$

$$\sum \left(\frac{3n}{2n+1}\right)^n = +\infty: \quad \sum \left(\frac{3+2n}{4+3n}\right)^n < +\infty$$

$$\sum \left(\frac{1}{3} + \frac{3}{n^3}\right)^{3n} < +\infty: \quad \sum \left(\frac{1+n}{n}\right)^n < +\infty$$

$$\sum \frac{1}{n} < +\infty: \quad \sum \frac{4+n}{n^2} < +\infty$$

$$\sum \frac{3^n 5^{n+1}}{n+1} = +\infty: \quad \sum \frac{n2^n}{n^2+1} = +\infty$$

$$\sum 1/n = +\infty: \quad \sum \frac{1/n}{n} < +\infty: \quad \sum \frac{1/n}{\sqrt{n}} < +\infty$$

$$\sum 1/\sqrt{n} \mathbf{t} = +\infty$$

$$\sum \frac{e^n}{n!} < +\infty: \quad \sum \frac{4^n}{n!} n! \mathbf{c} < +\infty$$

$$\sum \frac{n!}{n^n} < +\infty$$

$$\sum \frac{2n-1}{2^{n/2}} < +\infty$$

$$\sum \frac{n^3}{(3+3/n)^n} < +\infty$$

$$\sum \frac{2^n(n+1)^2}{n^3+n} = +\infty$$

$$\sum \frac{(n^2+n)^{1/3} - n^{2/3}}{n} < +\infty$$

$$\sum \left(\frac{(n+2)!}{n!+2} \right)^{2n} = +\infty: \quad \sum \left(\frac{n!+1}{(n+1)!} \right)^{2n} < +\infty: \quad \sum \left(\frac{(n+1)!+1}{n!} \right)^{n/3} = +\infty$$

$$\sum \frac{n^2+1}{n^3 2^n} < +\infty$$

$$\sum \sqrt{\frac{n^3+1}{n^3}} \not< +\infty$$

$$\sum \frac{1+3^{2n}}{2^{3n}-1} = +\infty$$

$$\sum \left(\frac{n+1}{n} \right)^n \frac{1}{e} = +\infty$$

$$\sum \frac{\sqrt{n}}{3^{2n} n^n} < +\infty$$

$$\sum \left(\frac{1}{n^n+1} \right)^{1/n} = +\infty$$

$$\sum \frac{n!}{(n+2)!2^{3n}} < +\infty: \quad \sum \frac{n!3^n}{(2n)!} < +\infty: \quad \sum \frac{(n!)^2}{(2n)!} < +\infty: \quad \sum \frac{n!2^n}{n^n} < +\infty$$

$$\sum \frac{1/n_{\mathfrak{t}}^3}{1/n_{\mathfrak{s}}} < +\infty: \quad \sum \frac{3/\sqrt{n}_{\mathfrak{t}}2n_{\mathfrak{c}}}{1/n_{\mathfrak{s}}} = +\infty: \quad \sum \frac{1/n^2_{\mathfrak{s}}}{3/n_{\mathfrak{t}}} = +\infty$$

$$\sum (n(n+1)(n+2)(n+3))^{-1/4} = +\infty$$

$$\sum n \left(\frac{1^n}{2} + \frac{1^n}{3} + \frac{1^n}{4} \right) < +\infty$$

$$\sum 2^n (\sqrt{n+1} - \sqrt{n}) = +\infty: \quad \sum (\sqrt{n^2+2} - \sqrt{n^2+1}) = +\infty$$

$$\sum 1/\sqrt{n}_{\mathfrak{s}} 3/\sqrt{n}_{\mathfrak{t}} = +\infty: \quad n^{-5/4}_{\mathfrak{s}} 1/n_{\mathfrak{c}} < +\infty: \quad 1/n_{\mathfrak{s}} 1/\sqrt{n}_{\mathfrak{c}} = +\infty: \quad 1/n_{\mathfrak{s}} 1/n_{\mathfrak{t}} < +\infty$$

$$\sum 2n^{-4/3}_{\mathfrak{t}} 2/n_{\mathfrak{s}} < +\infty$$

$$\sum n^{2+10} \chi^n = +\infty$$

$$\sum \frac{1}{n^n \chi} = +\infty$$

$$\sum \frac{\sqrt{1/n_{\mathfrak{s}}1/n_{\mathfrak{c}}}}{n} < +\infty: \quad \sum \frac{1/n_{\mathfrak{t}}21/n_{\mathfrak{s}}}{n} < +\infty: \quad \sum \frac{n^{-1/3}_{\mathfrak{s}}}{n^{1/\sqrt{n}_{\mathfrak{t}}}} = +\infty: \quad \sum \frac{1}{n^{31/n_{\mathfrak{s}}}} < +\infty$$

$$\sum_n^{\mathbb{N}} \frac{8^n 2 + 6^n 4}{12^n} = 14: \quad \sum_{n \geq 2} 2^{-n} 5: \quad \sum_n^{\mathbb{N}^{\times}} \frac{3}{10^n}: \quad \sum_n^{\mathbb{N}^{\times}} \pi^{-n}: \quad \sum_n^{\mathbb{N}} \frac{(-1)^n + 5^n}{7^n}$$

$$\cdot 888 = \cdot 8 \left(1 + \frac{1}{10} + \frac{1}{10^2} + \dots \right) = \frac{\cdot 8}{1 - \frac{1}{10}} = \frac{8}{9}: \cdot 239239\dots$$

$$\sum_n^{\mathbb{N}} \frac{n^2}{2^n}$$

$$\sum_{1 \leq n} \frac{1}{n^{1+1/n}}$$