

Př: 54/4:

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

Porovnáám s $\frac{1}{n^2}$: $\lim_{n \rightarrow \infty} \frac{\frac{1}{n^2}+6}{\frac{1}{n^2}} = \frac{n^2}{n^2+6} = 1$. Konverguje.

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

Porovnáám s $\frac{1}{n}$: $\lim_{n \rightarrow \infty} \frac{\frac{n}{3n^2-2}}{\frac{1}{n}} = \frac{n^2}{3n^2-2} = \frac{1}{3}$. Diverguje.

3. $\sum_{n=1}^{\infty} \frac{2n-1}{2n^2+5}$

Porovnáám s $\frac{1}{n}$: $\lim_{n \rightarrow \infty} \frac{\frac{2n-1}{2n^2+5}}{\frac{1}{n}} = \frac{2n^2-n}{2n^2+5} = \frac{2}{2} = 1$. Diverguje.

4. $\sum_{n=1}^{\infty} \frac{n-7}{2n^3-1}$

Porovnáám s $\frac{1}{n^2}$: $\lim_{n \rightarrow \infty} \frac{\frac{n-7}{2n^3-1}}{\frac{1}{n^2}} = \frac{n^3-7n^2}{2n^3-1} = \frac{1}{2}$. Konverguje.