

Sorok – Számsorok – Összege – Geometriai

1. $\sum_{n=0}^{\infty} \left(\frac{2}{5}\right)^n$, $\sum_{n=0}^{\infty} (-1)^n \frac{2^n}{5^n}$, $\sum_{n=0}^{\infty} \left(\frac{5}{2}\right)^n$.
2. $\sum_{n=0}^{\infty} \frac{3}{4^n}$, $\sum_{n=0}^{\infty} \frac{3}{4^{n+1}}$, $\sum_{n=0}^{\infty} \frac{3}{4^{2n-1}}$.
3. $\sum_{n=1}^{\infty} \frac{e^n}{3^{n+2}}$.
4. $\sum_{n=3}^{\infty} \frac{2^{2n-3}}{3^{n+1}}$.
5. $\sum_{n=1}^{\infty} \frac{2^{n-1}}{4^{2n}} - \sum_{n=2}^{\infty} \frac{5^{n+3}}{3^{2n-1}}$.
6. $\sum_{n=2}^{\infty} \frac{3^{2n+1} - (-5)^{n-1}}{4^{2n+1}}$.
7. $\sum_{n=1}^{\infty} \frac{2^{3n-1} + 4^{2n+1}}{3^{2n-3}}$.

Sorok – Számsorok – Összege – Teleszkopikus

1. $\sum_{n=1}^{\infty} \left(\frac{1}{2n+3} - \frac{1}{2n+1}\right)$.
2. $\sum_{n=2}^{\infty} \frac{1}{n^2+n}$.
3. $\sum_{n=3}^{\infty} \frac{1}{n^2-2n}$.
4. $\sum_{n=2}^{\infty} \frac{1}{n^2+3n+2}$.
5. $\sum_{n=3}^{\infty} \frac{1}{4-n^2}$.
6. $\sum_{n=1}^{\infty} \frac{1}{4n^2-1}$.

Sorok – Számsorok – Pozitív tagú sorok – Összehasonlító teszt

1. $\sum \frac{1}{n^2+n}$.
2. $\sum \frac{n-3}{5n+1}$, $\sum \frac{n-3}{5n^2+1}$.
3. $\sum \frac{1}{4-n^2}$.
4. $\sum \frac{n+3}{2n-n^2}$.
5. $\sum \frac{\sqrt{5n-2}}{3n^2-n+1}$.

$$6. \sum \frac{\sqrt[3]{2n-5}}{\sqrt{n^2+1}}.$$

$$7. \sum \frac{\sqrt{n} + \ln 3n}{2n^2 - 1}.$$

$$8. \sum \frac{3^n + 2n}{5^n - n^2}.$$

$$9. \sum \frac{3^n \cdot 2n}{5^n \cdot n^2}.$$

$$10. \sum \frac{n^2 + 2}{2^n - 2n}.$$

$$11. \sum \frac{1 + \cos n}{n^2}.$$

Sorok – Számsorok – Pozitív tagú sorok – Gyök, hányados teszt

$$1. \sum \frac{3^n \cdot 2n}{5^n \cdot n^2}.$$

$$2. \sum \frac{3^n + 2n}{5^n - n^2}.$$

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

$$4. \sum \frac{n^2 + 1}{n3^n}.$$

$$5. \sum \frac{3n+1}{2n-1}.$$

$$6. \sum \frac{\sqrt{n+2}}{n^2+4}.$$

$$7. \sum \frac{2n-1}{2^n+1} \left(2 \left(\frac{3}{2} + \frac{\sqrt{2}}{2} \right) - 3 \right)^{2n}.$$

$$8. \sum \frac{-2n-1}{2^n+1}.$$

$$9. \sum \frac{2n2^n}{n!}.$$

$$10. \sum \frac{2n+2^n}{n!}.$$

$$11. \sum \frac{3^n(n+1)!}{(2n-3)!}.$$

$$12. \sum \frac{(2n+1)!}{n+2n!}.$$

Sorok – Számsorok – Pozitív tagú sorok – Integrál teszt

$$1. \sum \frac{1}{n^3}, \quad \sum \frac{1}{\sqrt{n}}.$$

$$2. \sum \frac{1}{n \ln 2n} .$$

$$3. \sum \frac{1}{n \sqrt{\ln^3 n}} .$$

$$4. \sum \frac{\ln n}{n^2} .$$

$$5. \sum \frac{e^{1/n}}{n^2} .$$

$$6. \sum \frac{1}{n^2 - 2n} .$$

Sorok – Számsorok – Alternáló sorok

$$1. \sum \frac{\cos n}{n^2} .$$

$$2. \sum \left(\frac{2}{3}\right)^n \cos 9^n .$$

$$3. \sum \frac{n \cos(n\pi/4)}{n+3} .$$

$$4. \sum \frac{(-1)^n}{n^2 + n} .$$

$$5. \sum (-1)^{n+1} \frac{3n}{4n+1} .$$

$$6. \sum (-1)^n \frac{\sqrt{n+2}}{2n+3} .$$

$$7. \sum (-1)^n \frac{3-2n}{n^2+5} .$$

$$8. \sum (-1)^n \frac{n+2^n}{n^2-3^n} .$$

$$9. \sum \frac{(-1)^{2n+1}}{n \ln 3n}, \quad \sum \frac{1}{(-1)^{n+1} n \ln 3n} .$$

$$10. \sum \frac{n5^n}{n^2-3} (-2-3)^{1-n} .$$

$$11. \sum \frac{n+3}{n^2 2^n} \left(2 \left(\frac{3}{2} - \frac{\sqrt[3]{2}}{2} \right) - 3 \right)^{3n+1} .$$

Sorok – Számsorok – Becslés

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

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

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

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

$$5. \sum_{n=3}^{\infty} (-1)^{2n+1} \frac{-3}{4+n^2} .$$

$$6. \sum_{n=1}^{\infty} \frac{1}{2n^2 - n - 3} .$$

$$7. \sum_{n=2}^{\infty} \frac{1}{n \ln^2 n} .$$