

**Вариант № 1**

- $$1. \sum_{n=1}^{\infty} \frac{1}{n} \operatorname{tg} \frac{1}{\sqrt{n}}$$
- $$2. \sum_{n=1}^{\infty} \frac{n+1}{2^n (n-1)!}$$
- $$3. \sum_{n=1}^{\infty} \frac{1}{3^n} \left( \frac{n}{n+1} \right)^{-n^2}$$
- $$4. \sum_{n=1}^{\infty} \frac{1}{(n+1) \ln(n+1)}$$
- $$5. \sum_{n=1}^{\infty} (-1)^n \frac{2n+1}{n(3n+1)}$$
- $$6. \sum_{n=1}^{\infty} \frac{(n+1)^3 (x+3)^{2n}}{2n-1}$$

**Вариант № 2**

- $$1. \sum_{n=1}^{\infty} \frac{1}{\sqrt{n}} \sin \frac{1}{n}$$
- $$2. \sum_{n=1}^{\infty} \frac{2^{n+1} (n^3 + 1)}{(n+1)!}$$
- $$3. \sum_{n=1}^{\infty} \frac{1}{4^n} \left( 1 + \frac{1}{n} \right)^{n^2}$$
- $$4. \sum_{n=1}^{\infty} \frac{1}{(7n-1) \ln^2(7n-1)}$$
- $$5. \sum_{n=1}^{\infty} (-1)^{n+1} \left( \frac{n}{2n+1} \right)^n$$
- $$6. \sum_{n=1}^{\infty} \frac{(-1)^n (x-2)^n}{(2n-1)4^n}$$

**Вариант № 3**

- $$1. \sum_{n=1}^{\infty} \frac{n^3 + 1}{n^5 + \sqrt{n}}$$
- $$2. \sum_{n=1}^{\infty} \frac{(2n+2)!}{(3n+5)2^n}$$
- $$3. \sum_{n=1}^{\infty} \left( \frac{2n^2 + 1}{n^2 + 1} \right)^{n^2}$$
- $$4. \sum_{n=1}^{\infty} \frac{1}{(3n-1) \ln^3(3n-1)}$$
- $$5. \sum_{n=1}^{\infty} \frac{(-1)^{n+1}}{\ln(n+1)}$$
- $$6. \sum_{n=1}^{\infty} \frac{(2n+1)(x-2)^{2n}}{n9^n}$$