Ряд

Исследовать сходимость ряда

Вариант 61

1) $\sum\limits_{n=2}^{\infty} \dfrac{6^{n+1}+5}{5^n(3n)!}$

2) $\sum\limits_{n=1}^{\infty} \dfrac{1-\sqrt{\cos\frac{6}{n}}}{1-\cos\frac{10}{n}}$

3) $\sum\limits_{n=1}^{\infty} (\ln^6 n)(\cos\dfrac{\pi}{5n}-1)^{10n}$

4) $\sum\limits_{n=6}^{\infty} \dfrac{n+1}{n^2\,\sqrt[5]{\ln(10n+1)}}$

5) $\sum\limits_{n=1}^{\infty} \dfrac{6^n}{(n!)^5}$

6) $\sum\limits_{n=1}^{\infty} \dfrac{\sin(n)}{6^{n+5}-n}$

7) $\sum\limits_{n=1}^{\infty} \dfrac{1+e^{-6n}}{\sqrt[4]{6n^2(n^2+6)+1}}$

18.3

Вариант 62

1) $\sum\limits_{n=1}^{\infty} \dfrac{1+1/n}{\sqrt[5]{n^4(n+12)}}$

2) $\sum\limits_{n=1}^{\infty} (\sqrt{n^5+5n+5}-\sqrt{n^5+12})$

3) $\sum\limits_{n=4}^{\infty} n\,\sin^2(5/\sqrt{n})$

4) $\sum\limits_{n=3}^{\infty} n\,\dfrac{\ln(5n)}{\sqrt[3]{n^4+3}}$

5) $\sum\limits_{n=1}^{\infty} \sqrt[3]{n^2}\arctan(1/n^2)$

6) $\sum\limits_{n=1}^{\infty} n^2\left(\dfrac{4n^5+2}{1/n+8n^4}\right)^n$

7) $\sum\limits_{n=1}^{\infty} \dfrac{4^n(n+1)!}{n^n}$

18.3

Вариант 63

1) $\sum\limits_{n=1}^{\infty} \dfrac{1+1/n}{\sqrt[7]{n^6(n+12)}}$

2) $\sum\limits_{n=1}^{\infty} (\sqrt{4n+11}-2\sqrt{n+5})$

3) $\sum\limits_{n=4}^{\infty} n\,\mathrm{sh}(5/n)$

4) $\sum\limits_{n=5}^{\infty} n\,\dfrac{\ln(5n)}{\sqrt[3]{n^4+3}}$

5) $\sum\limits_{n=1}^{\infty} \sqrt[3]{n}\,\mathrm{tg}^2(\pi/n^2)$

6) $\sum\limits_{n=1}^{\infty} n^3\left(\dfrac{6n^5+3}{n+11n^5}\right)^n$

7) $\sum\limits_{n=1}^{\infty} \dfrac{6^n(n+1)!}{n^n}$

18.3

Вариант 64

1) $\sum\limits_{n=1}^{\infty} (\sqrt[n]{3}-1)$

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

3) $\sum\limits_{n=2}^{\infty} n\,\mathrm{tg}(3/n)$

4) $\sum\limits_{n=2}^{\infty} n\,\dfrac{n!}{2+(n+1)!}$

5) $\sum\limits_{n=1}^{\infty} (1-\cos(\pi/n^2))$

6) $\sum\limits_{n=1}^{\infty} n^3\left(\dfrac{3n^3+4}{n^3}\right)^{(n^2)}$

7) $\sum\limits_{n=1}^{\infty} \dfrac{n!(3n+1)!}{3n!+2}$

18.3

Вариант 65

1) $\sum\limits_{n=1}^{\infty} \dfrac{(1+n^3 2^n)}{5^{n-1}}$

2) $\sum\limits_{n=2}^{\infty} \dfrac{2^n + 5}{3^n(n^2+1)!}$

3) $\sum\limits_{n=1}^{\infty} 1 - \cos\dfrac{2}{\sqrt{n}}$

4) $\sum\limits_{n=1}^{\infty} (n^2+1)\arcsin^{10n}\dfrac{\pi}{3n}$

5) $\sum\limits_{n=2}^{\infty} \dfrac{1}{n\sqrt[3]{\ln(10n+1)}}$

6) $\sum\limits_{n=1}^{\infty} \dfrac{2^n n!}{n^{n+5}}$

7) $\sum\limits_{n=1}^{\infty} \dfrac{\sin(n)}{2^{n+5}-n}$

18.3

Вариант 66

1) $\sum\limits_{n=1}^{\infty} \dfrac{n! + n}{2^{n-1}+1}$

2) $\sum\limits_{n=1}^{\infty} \dfrac{(1+n^6 2^n)}{2^{n-1}}$

3) $\sum\limits_{n=2}^{\infty} \dfrac{2^n n!}{6^{2n+2}+n}$

4) $\sum\limits_{n=1}^{\infty} \left(1 - \cos\dfrac{2}{\sqrt{n}}\right)^2$

5) $\sum\limits_{n=1}^{\infty} n^2 \operatorname{arctg}^{4n}\dfrac{\pi}{6n}$

6) $\sum\limits_{n=2}^{\infty} \dfrac{1}{(2n+1)\ln(2n)}$

7) $\sum\limits_{n=1}^{\infty} \dfrac{2^{n+4}}{(2n!)^2}$

18.3

Вариант 67

1) $\sum\limits_{n=1}^{\infty} \dfrac{\sin(n)}{4^{n+5}-n}$

2) $\sum\limits_{n=1}^{\infty} (\ln(4n))^{-n}$

3) $\sum\limits_{n=1}^{\infty} (\sqrt{n^4+5} - \sqrt{n^4+4})$

4) $\sum\limits_{n=3}^{\infty} n\arcsin(4/n)$

5) $\sum\limits_{n=4}^{\infty} n\dfrac{\ln(4n)+1}{\sqrt[3]{n+1}}$

6) $\sum\limits_{n=1}^{\infty} n^3 \sin(1/\sqrt[7]{n^6+1})$

7) $\sum\limits_{n=1}^{\infty} n^6 \left(\dfrac{5n^4+7}{8n^4+\sin(n)}\right)^n$

18.3

Вариант 68

1) $\sum\limits_{n=4}^{\infty} n\dfrac{n!+1}{(n+1)!}$

2) $\sum\limits_{n=1}^{\infty} n^3 \sin(1/\sqrt[7]{n^6+1})$

3) $\sum\limits_{n=1}^{\infty} n^6 \left(\dfrac{5n^2+8}{6n^2+\sin(n)}\right)^n$

4) $\sum\limits_{n=1}^{\infty} \dfrac{n!+n}{5^{n-1}+1}$

5) $\sum\limits_{n=1}^{\infty} \dfrac{(1+n^6 2^n)}{5^{n-1}}$

6) $\sum\limits_{n=2}^{\infty} \dfrac{2^n n!}{6^{2n+5}+n}$

7) $\sum\limits_{n=1}^{\infty} \left(1 - \cos\dfrac{2}{\sqrt{n}}\right)^2$

18.3

Вариант 69	**Вариант 70**

Вариант 69

1) $\displaystyle\sum_{n=1}^{\infty} n^6 \left(\frac{5n^6 + 9}{10n^6 + \sin(n)} \right)^n$

2) $\displaystyle\sum_{n=1}^{\infty} \frac{3^n n! + 5n}{n^n}$

3) $\displaystyle\sum_{n=1}^{\infty} \frac{(1 + n^6 6^{n-1})}{5^n + 1}$

4) $\displaystyle\sum_{n=2}^{\infty} \frac{6^n n!}{6^{2n+5} + n}$

5) $\displaystyle\sum_{n=1}^{\infty} \left(1 - \cos \frac{6}{\sqrt{n}} \right)^2$

6) $\displaystyle\sum_{n=1}^{\infty} (n^6 + 1) \arcsin^{10n} \frac{\pi}{6n}$

7) $\displaystyle\sum_{n=2}^{\infty} \frac{1}{n \sqrt[6]{\ln(10n+1)}}$

18.3

Вариант 70

1) $\displaystyle\sum_{n=1}^{\infty} \frac{6^n}{(n!)^6}$

2) $\displaystyle\sum_{n=1}^{\infty} \frac{\cos(1/n)}{6^{6n+1}}$

3) $\displaystyle\sum_{n=1}^{\infty} \frac{1 + e^{-6n}}{\sqrt[4]{10n^2(n^2 + 7) + 1}}$

4) $\displaystyle\sum_{n=1}^{\infty} (\sqrt{4n + 13} - 2\sqrt{n + 6})$

5) $\displaystyle\sum_{n=5}^{\infty} n \, \mathrm{sh}(6/n)$

6) $\displaystyle\sum_{n=5}^{\infty} n \frac{8 + \cos(n)}{n^3 + \sqrt[3]{n+1}}$

7) $\displaystyle\sum_{n=1}^{\infty} \sqrt[3]{n} \, \mathrm{tg}^2(\pi/n^2)$

18.3

Вариант 71

1) $\displaystyle\sum_{n=1}^{\infty} n^6 \sin^{10n} \frac{\pi}{5n}$

2) $\displaystyle\sum_{n=2}^{\infty} \frac{1}{(12n - 1)\sqrt{\ln(10n)}}$

3) $\displaystyle\sum_{n=1}^{\infty} \frac{6^n}{(n!)^5}$

4) $\displaystyle\sum_{n=1}^{\infty} \frac{\sin(n)}{6^{n+5} - n}$

5) $\displaystyle\sum_{n=1}^{\infty} \frac{1 + e^{-6n}}{\sqrt[4]{8n^2(n^2 + 6) + 1}}$

6) $\displaystyle\sum_{n=1}^{\infty} (\sqrt{n^4 + 7} - \sqrt{n^4 + 6})$

7) $\displaystyle\sum_{n=5}^{\infty} n \arcsin(6/n)$

18.3

Вариант 72

1) $\displaystyle\sum_{n=1}^{\infty} (\sqrt{n^4 + 4} - \sqrt{n^4 + 3})$

2) $\displaystyle\sum_{n=2}^{\infty} n \arcsin(3/n)$

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

4) $\displaystyle\sum_{n=1}^{\infty} n^3 \sin(1/\sqrt[6]{n^5 + 1})$

5) $\displaystyle\sum_{n=1}^{\infty} n^5 \left(\frac{5n^3 + 12}{7n^3 + \sin(n)} \right)^n$

6) $\displaystyle\sum_{n=1}^{\infty} \frac{n!(5n + 1)!}{3n! + 2}$

7) $\displaystyle\sum_{n=1}^{\infty} \frac{(1 + n^5 3^n)}{3^{n+1}}$

18.3

Вариант 73

1) $\sum\limits_{n=1}^{\infty} 1 - \cos\dfrac{2}{n}$

2) $\sum\limits_{n=1}^{\infty} n^{n+2}\mathrm{arctg}^{6n}\dfrac{\pi}{2n}$

3) $\sum\limits_{n=2}^{\infty} \dfrac{n^2+1}{n^3 \ln^2(12n)}$

4) $\sum\limits_{n=1}^{\infty} \dfrac{n!(3n+14)!}{(6n)!}$

5) $\sum\limits_{n=1}^{\infty} \dfrac{\cos(1/n)}{2^{6n+1}}$

6) $\sum\limits_{n=1}^{\infty} \sin(2/n)$

7) $\sum\limits_{n=1}^{\infty} (\sqrt{4n+5} - 2\sqrt{n+2})$

18.3

Вариант 74

1) $\sum\limits_{n=1}^{\infty} n^5 \left(\dfrac{5n^6+14}{10n^6+\sin(n)} \right)^n$

2) $\sum\limits_{n=1}^{\infty} \dfrac{3^n n! + 5n}{n^n}$

3) $\sum\limits_{n=1}^{\infty} \dfrac{(1+n^5 6^{n-1})}{5^n+1}$

4) $\sum\limits_{n=2}^{\infty} \dfrac{6^{n+1}+5}{5^n(3n)!}$

5) $\sum\limits_{n=1}^{\infty} \dfrac{1-\sqrt{\cos\frac{6}{n}}}{1-\cos\frac{10}{n}}$

6) $\sum\limits_{n=1}^{\infty} n^6 \sin^{10n}\dfrac{\pi}{5n}$

7) $\sum\limits_{n=2}^{\infty} \dfrac{1}{(12n-1)\sqrt{\ln(10n)}}$

18.3

Вариант 75

1) $\sum\limits_{n=2}^{\infty} \dfrac{6^n+3}{4^{n+1}(2n)!+1}$

2) $\sum\limits_{n=1}^{\infty} 1 - \sqrt{\cos\dfrac{6}{n^2}}$

3) $\sum\limits_{n=1}^{\infty} (n^6+1)\arcsin^{6n}\dfrac{\pi}{4n}$

4) $\sum\limits_{n=2}^{\infty} \dfrac{1}{n\sqrt[4]{\ln(6n+1)}}$

5) $\sum\limits_{n=1}^{\infty} \dfrac{6^n(n^3-1)}{n!}$

6) $\sum\limits_{n=1}^{\infty} \dfrac{1}{(6^n-\sin(n))\ln(n)}$

7) $\sum\limits_{n=1}^{\infty} \dfrac{1+e^{-6n}}{\sqrt[4]{6n^2(n^2+4)+1}}$

18.3

Вариант 76

1) $\sum\limits_{n=1}^{\infty} n \arcsin(2/n)$

2) $\sum\limits_{n=4}^{\infty} n \dfrac{n!+1}{(n+1)!}$

3) $\sum\limits_{n=1}^{\infty} n^3 \sin(1/\sqrt[6]{n^5+1})$

4) $\sum\limits_{n=1}^{\infty} n^5 \left(\dfrac{5n^2+16}{6n^2+\sin(n)} \right)^n$

5) $\sum\limits_{n=1}^{\infty} \dfrac{n!+n}{5^{n-1}+1}$

6) $\sum\limits_{n=1}^{\infty} \dfrac{(1+n^5 2^n)}{5^{n-1}}$

7) $\sum\limits_{n=2}^{\infty} \dfrac{2^{n+1}+5}{5^n(3n)!}$

18.3

Вариант 77

1) $\displaystyle\sum_{n=1}^{\infty} \frac{1}{n} \ln \frac{4n^3+3}{n^3+1}$

2) $\displaystyle\sum_{n=1}^{\infty} n^6 \left(\frac{2n^3+17}{4n^3+1} \right)^n$

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

4) $\displaystyle\sum_{n=1}^{\infty} \frac{(1+n^6 3^n)}{3^{n+1}}$

5) $\displaystyle\sum_{n=2}^{\infty} \frac{3^n n!}{6^{2n+2}+n}$

6) $\displaystyle\sum_{n=1}^{\infty} \left(1 - \cos \frac{3}{\sqrt{n}} \right)^2$

7) $\displaystyle\sum_{n=1}^{\infty} n^{n+3} \mathrm{arctg}^{2n} \frac{\pi}{6n}$

18.3

Вариант 78

1) $\displaystyle\sum_{n=1}^{\infty} \frac{1}{n} \ln \frac{5n^3+4}{n^3+1}$

2) $\displaystyle\sum_{n=1}^{\infty} n^3 \left(\frac{2n^4+18}{5n^4+1} \right)^n$

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

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

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

6) $\displaystyle\sum_{n=1}^{\infty} 1 - \cos \frac{4}{\sqrt{n}}$

7) $\displaystyle\sum_{n=1}^{\infty} (n^4+1) \arcsin^{4n} \frac{\pi}{3n}$

18.3

Вариант 79

1) $\displaystyle\sum_{n=3}^{\infty} n \, \mathrm{tg}(4/n)$

2) $\displaystyle\sum_{n=2}^{\infty} n \frac{\ln(4n)+1}{\sqrt[3]{n+1}}$

3) $\displaystyle\sum_{n=1}^{\infty} (1 - \cos(\pi/n^2))$

4) $\displaystyle\sum_{n=1}^{\infty} n^4 \left(\frac{3n^4+19}{n^4} \right)^{(n^2)}$

5) $\displaystyle\sum_{n=1}^{\infty} \frac{2^n+n!}{(3n+1)!}$

6) $\displaystyle\sum_{n=1}^{\infty} \frac{(1+n^4 4^{n+1})}{3^n}$

7) $\displaystyle\sum_{n=2}^{\infty} \frac{4^n+3}{4^{n+1}(2n)!+1}$

18.3

Вариант 80

1) $\displaystyle\sum_{n=5}^{\infty} n \, \sin^2(6/\sqrt{n})$

2) $\displaystyle\sum_{n=3}^{\infty} n \frac{8+\cos(n)}{n^3+\sqrt[3]{n+1}}$

3) $\displaystyle\sum_{n=1}^{\infty} \sqrt[5]{n^4} \arctan(1/n^2)$

4) $\displaystyle\sum_{n=1}^{\infty} n^4 \left(\frac{4n^6+20}{1/n+9n^4} \right)^n$

5) $\displaystyle\sum_{n=1}^{\infty} \frac{3^n n!+4n}{n^n}$

6) $\displaystyle\sum_{n=1}^{\infty} \frac{(1+n^4 6^{n-1})}{4^n+1}$

7) $\displaystyle\sum_{n=2}^{\infty} \frac{6^n+4}{4^{n+1}(2n)!+1}$

18.3

Вариант 81

1) $\displaystyle\sum_{n=3}^{\infty} n\,\frac{8+\cos(n)}{n^3+\sqrt[3]{n+1}}$

2) $\displaystyle\sum_{n=1}^{\infty} \sqrt[5]{n^4}\,\arctan(1/n^2)$

3) $\displaystyle\sum_{n=1}^{\infty} n^4\left(\frac{4n^6+21}{1/n+9n^4}\right)^n$

4) $\displaystyle\sum_{n=1}^{\infty} \frac{3^n n!+4n}{n^n}$

5) $\displaystyle\sum_{n=1}^{\infty} \frac{(1+n^4 6^{n-1})}{4^n+1}$

6) $\displaystyle\sum_{n=2}^{\infty} \frac{6^n+4}{4^{n+1}(2n)!+1}$

7) $\displaystyle\sum_{n=1}^{\infty} 1-\sqrt{\cos\frac{6}{n^2}}$

Вариант 82

1) $\displaystyle\sum_{n=1}^{\infty} (\sqrt{n^5+5n+4}-\sqrt{n^5+13})$

2) $\displaystyle\sum_{n=3}^{\infty} n\,\sin^2(4/\sqrt{n})$

3) $\displaystyle\sum_{n=3}^{\infty} n\,\frac{\ln(4n)+1}{\sqrt[3]{n+1}}$

4) $\displaystyle\sum_{n=1}^{\infty} \sqrt[7]{n^6}\,\arctan(1/n^2)$

5) $\displaystyle\sum_{n=1}^{\infty} n^6\left(\frac{4n^4+22}{1/n+7n^4}\right)^n$

6) $\displaystyle\sum_{n=1}^{\infty} \frac{2^n+n!}{(4n+1)!}$

7) $\displaystyle\sum_{n=1}^{\infty} \frac{(1+n^6 4^{n+1})}{4^n}$

Вариант 83

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

2) $\displaystyle\sum_{n=1}^{\infty} n\,\arcsin(2/n)$

3) $\displaystyle\sum_{n=4}^{\infty} n\,\frac{n!+1}{(n+1)!}$

4) $\displaystyle\sum_{n=1}^{\infty} n^3\sin(1/\sqrt[6]{n^5+1})$

5) $\displaystyle\sum_{n=1}^{\infty} n^5\left(\frac{5n^2+23}{6n^2+\sin(n)}\right)^n$

6) $\displaystyle\sum_{n=1}^{\infty} \frac{n!+n}{5^{n-1}+1}$

7) $\displaystyle\sum_{n=1}^{\infty} \frac{(1+n^5 2^n)}{5^{n-1}}$

Вариант 84

1) $\displaystyle\sum_{n=2}^{\infty} \frac{5^n+6}{3^n(n^2+1)!}$

2) $\displaystyle\sum_{n=1}^{\infty} 1-\cos\frac{5}{\sqrt{n}}$

3) $\displaystyle\sum_{n=1}^{\infty} n^5\mathrm{arctg}^{12n}\frac{\pi}{3n}$

4) $\displaystyle\sum_{n=2}^{\infty} \frac{1}{(5n+1)\ln(6n)}$

5) $\displaystyle\sum_{n=1}^{\infty} \frac{5^n n!}{n^{n+6}}$

6) $\displaystyle\sum_{n=1}^{\infty} \frac{\cos(1/n)}{5^{6n+1}}$

7) $\displaystyle\sum_{n=1}^{\infty} \frac{1+1/n}{\sqrt[7]{n^6(n+6)}}$

Вариант 85

1) $\displaystyle\sum_{n=1}^{\infty} n^{n+2}\mathrm{arctg}^{3n}\frac{\pi}{4n}$

2) $\displaystyle\sum_{n=2}^{\infty} \frac{n^2+1}{n^3\ln^2(6n)}$

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

4) $\displaystyle\sum_{n=1}^{\infty} \frac{1}{(2^n-\sin(n))\ln(n)}$

5) $\displaystyle\sum_{n=1}^{\infty} \sin(2/n)$

6) $\displaystyle\sum_{n=1}^{\infty}(\sqrt{n^3+4n+2}-\sqrt{n^3+4n+1})$

7) $\displaystyle\sum_{n=1}^{\infty} n\,\mathrm{tg}(2/n)$

18.3

Вариант 86

1) $\displaystyle\sum_{n=4}^{\infty} \frac{n+1}{n^2\sqrt[4]{\ln(8n+1)}}$

2) $\displaystyle\sum_{n=1}^{\infty} \frac{4^n(n^4-1)}{n!}$

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

4) $\displaystyle\sum_{n=1}^{\infty}(\ln(4n))^{-n}$

5) $\displaystyle\sum_{n=1}^{\infty}(\sqrt{n^5+5n+4}-\sqrt{n^5+9})$

6) $\displaystyle\sum_{n=3}^{\infty} n\,\sin^2(4/\sqrt{n})$

7) $\displaystyle\sum_{n=3}^{\infty} n\,\frac{\ln(4n)+1}{\sqrt[3]{n+1}}$

18.3

Вариант 87

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

2) $\displaystyle\sum_{n=1}^{\infty} \frac{1-\sqrt{\cos\frac{5}{n}}}{1-\cos\frac{8}{n}}$

3) $\displaystyle\sum_{n=1}^{\infty} n^5\sin^{8n}\frac{\pi}{5n}$

4) $\displaystyle\sum_{n=2}^{\infty} \frac{1}{(10n-1)\sqrt{\ln(8n)}}$

5) $\displaystyle\sum_{n=1}^{\infty} \frac{5^n}{(n!)^4}$

6) $\displaystyle\sum_{n=1}^{\infty} \frac{1}{(5^n-1/n)(1+n^2)}$

7) $\displaystyle\sum_{n=1}^{\infty} \frac{1+1/n}{\sqrt[5]{n^4(n+6)}}$

18.3

Вариант 88

1) $\displaystyle\sum_{n=2}^{\infty} \frac{3^{n+1}+5}{5^n(3n)!}$

2) $\displaystyle\sum_{n=1}^{\infty} \frac{1-\sqrt{\cos\frac{3}{n}}}{1-\cos\frac{7}{n}}$

3) $\displaystyle\sum_{n=1}^{\infty} n^{n+3}\mathrm{arctg}^{5n}\frac{\pi}{5n}$

4) $\displaystyle\sum_{n=2}^{\infty} \frac{n^3+1}{n^4\ln^2(10n)}$

5) $\displaystyle\sum_{n=1}^{\infty} \frac{3^n}{(n!)^5}$

6) $\displaystyle\sum_{n=1}^{\infty} \frac{\sin(n)}{3^{n+5}-n}$

7) $\displaystyle\sum_{n=1}^{\infty}(\sqrt[n]{3}-1)$

18.3

Вариант 89

1) $\sum\limits_{n=1}^{\infty} \dfrac{\sin(n)}{5^{n+5} - n}$

2) $\sum\limits_{n=1}^{\infty} \dfrac{1 + 1/n}{\sqrt[6]{n^5(n+11)}}$

3) $\sum\limits_{n=1}^{\infty} (\sqrt{n^4 + 6} - \sqrt{n^4 + 5})$

4) $\sum\limits_{n=4}^{\infty} n \arcsin(5/n)$

5) $\sum\limits_{n=4}^{\infty} n \dfrac{\ln(5n)}{\sqrt[3]{n^4 + 3}}$

6) $\sum\limits_{n=1}^{\infty} n^3 \sin(1/\sqrt[6]{n^5 + 1})$

7) $\sum\limits_{n=1}^{\infty} n^5 \left(\dfrac{5n^5 + 29}{9n^5 + \sin(n)} \right)^n$

18.3

Вариант 90

1) $\sum\limits_{n=1}^{\infty} \dfrac{1}{2^n - n}$

2) $\sum\limits_{n=1}^{\infty} \sin(2/n)$

3) $\sum\limits_{n=1}^{\infty} (\sqrt{n^2 + 4n + 11} - \sqrt{n^2 + 3n})$

4) $\sum\limits_{n=1}^{\infty} n \sin(2/n)$

5) $\sum\limits_{n=1}^{\infty} n \dfrac{n! + 1}{(n+1)!}$

6) $\sum\limits_{n=1}^{\infty} \dfrac{1}{n} \ln \dfrac{3n^3 + 2}{n^3 + 1}$

7) $\sum\limits_{n=1}^{\infty} n^3 \left(\dfrac{2n^2 + 30}{3n^2 + 1} \right)^n$

18.3