Series

Convergence Tests

Limit Comparison Test

1. $convergence \sum_{n=1}^{\infty} \dfrac{n}{n^2 + 1}$

2. $convergence \sum_{n=1}^{\infty} \dfrac{2n - 1}{n^2 + n}$

3. $convergence \sum_{n=1}^{\infty} \dfrac{n^2}{n^3 + 1}$

4. $convergence \sum_{n=1}^{\infty} \dfrac{1}{4n + 3}$

5. $convergence \sum_{n=1}^{\infty} \dfrac{n + 2}{n^2 + 1}$

6. $convergence \sum_{n=1}^{\infty} \dfrac{1}{4n + 5}$

7. $convergence \sum_{n=1}^{\infty} \dfrac{1}{\sqrt{n(n + 1)}}$

8. $convergence \sum_{n=1}^{\infty} \dfrac{3n + 2}{n(n + 1)}$

9. $convergence \sum_{n=1}^{\infty} \sin\left(\dfrac{2}{n}\right)$

10. $convergence \sum_{n=1}^{\infty} \dfrac{30n^2 + 1}{10n^3 + n}$

Answers

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Limit Comparison Test

1. diverges

2. diverges

3. diverges

4. diverges

5. diverges

6. diverges

7. diverges

8. diverges

9. diverges

10. diverges