WebAssign Hw 23 (11.5): Alternating Series (Homework)

Yinglai Wang MA 162 Spring 2012, section 321, Spring 2012

Instructor: Jonathan Montano

1. 2.85/2.85 points | Previous Answers

SCalcET7 11.5.002.MI.

Test the series for convergence or divergence.

$$\frac{3}{4} - \frac{3}{6} + \frac{3}{8} - \frac{3}{10} + \frac{3}{12} - \cdots$$

- converges
- diverges



Need Help?

Read It

Watch It

Master It

Chat About It

2. 2.85/2.85 points | Previous Answers

SCalcET7 11.5.004.

Test the series for convergence or divergence.

$$\sum_{n=1}^{\infty} (-1)^{n-1} b_n = \frac{1}{\sqrt{4}} - \frac{1}{\sqrt{5}} + \frac{1}{\sqrt{6}} - \frac{1}{\sqrt{7}} + \frac{1}{\sqrt{8}} - \cdots$$

- converges
- diverges

Need Help?

Read It

Chat About It

3. 2.85/2.85 points | Previous Answers

SCalcET7 11.5.005.

Test the series for convergence or divergence.

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

- converges
- diverges



Read It

Chat About It

4. 2.85/2.85 points | Previous Answers

SCalcET7 11.5.008.

Test the series for convergence or divergence.

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

- converges
- diverges



Need Help? Read It

Chat About It

5. 2.85/2.85 points | Previous Answers

SCalcET7 11.5.011.

Test the series for convergence or divergence.

$$\sum_{n=1}^{\infty} (-1)^{n+1} \frac{n^2}{n^3 + 8}$$

- converges
- diverges



Read It

Watch It

Chat About It

6. 2.85/2.85 points | Previous Answers

SCalcET7 11.5.013.

Test the series for convergence or divergence.

$$\sum_{n=1}^{\infty} (-1)^{n-1} e^{7/n}$$

- converges
- diverges



Read It

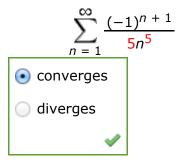
Chat About It

Hw 23 (11.5): Alternating Series 3/19/12 9:05 PM

7. 2.9/2.9 points | Previous Answers

SCalcET7 11.5.023.

Test the series for convergence or divergence.



If the series is convergent, use the <u>Alternating Series Estimation Theorem</u> to determine how many terms we need to add in order to find the sum with an error less than 0.00005. (If the quantity diverges, enter DIVERGES.)

