MATH 152 Assignment 6, Fall 2026.

Webassign Exercises

Most students find that this material is the most difficult part of MATH 152 so give yourself some extra time.

11.2 Exercises 15, 24, 33, 39

11.3 Exercises 7, 25, 36

11.4 Exercises 11, 19, 21, 23

11.5 Exercises 5, 8, 37

11.6 Exercises 1, 3, 5, 9

Written Exercises

1. Section 11.2 exercise 4.
2. Section 11.2 exercise 19.
3. Section 11.3 exercise 14. Express the sum in sigma notation then use the integral test.
4. Section 11.3 exercise 41. First find the remainder bound for R_n. The answer in the back of the textbook is wrong. The exact value of the series is 0.0014470766.
5. Section 11.4. Test if $\displaystyle\sum_{n=1}^{\infty} \frac{1}{n+2}$ converges or diverges using the limit comparison test.
6. Section 11.5 exercise 11.
7. Section 11.5. Let $S = \displaystyle\sum_{n=1}^{\infty} \frac{(-1)^{n-1}}{n4^n}$.
   (a) Calculate the first 5 terms of the series S.
   (b) Show that S is absolutely convergent.
   (c) How many terms of S do we need to add in order to find the the sum accurate to ± 0.0005? Use the Alternating Series Estimation Theorem on page 768.
   (d) Approximate S to 3 decimal places using your result from part (c).
8. Section 11.6 exercise 10.

Midterm 3 is on Friday November 20th at 8:30am.

It covers the material covered on Assignments 5 and 6 which is Sections 7.6, 8.1, 10.2, 11.1−11.6.