

Math 106 Sections A and B

HW 5 (due on Friday, 2/18)

Show all your work to receive full credit for a problem.

Determine the convergence of the following series. If you can find the sum of a convergent series, do so.

1. $1 - 2 + 4 - 6 + 8 - 10 + \cdots$

2. $\frac{2}{5} - \frac{2}{25} + \frac{2}{125} - \frac{2}{625} + \cdots$

3. $\sum_{n=0}^{\infty} 4n e^{-n^2}$

4. $\sum_{n=0}^{\infty} \frac{1}{2^n} + \frac{11}{2n+1}$

5. $\sum_{n=1}^{\infty} \frac{7+2^n}{3^n}$

6. $\sum_{n=1}^{\infty} \frac{n}{n+1}$

7. $\sum_{n=3}^{\infty} \frac{n+6}{n^2+5}$

8. $\sum_{n=0}^{\infty} \frac{1}{(3n-4)^2}$

Practice Problems: Not to be handed in

- Section 9.2 (Page 416) 1-7, 13, 15, 16, 19, 20