Homework Assignment for Chapter 10

1. Section 10.1: Problems 67, 69.

2. Section 10.2: Problems 65, 71.

3. Section 10.3: Problems 27, 31, 33, 37, 53, 55.

4. Section 10.4: Problems 17, 27, 31, 43, 45, 51, 61, 62.

5. Section 10.5: Odd problems in problem 17-43, 61, 65.

6. Section 10.6: Problems 29, 35, 39, 43, 49

7. Section 10.7: Odd problems in problem 37-55.

8. Find a power series that converges on $(1, 3)$ and diverges otherwise. Do the same for $(1, 3]$, $[1, 3)$ and $[1, 3]$, respectively.

9. Section 10.8: Problems 7, 9, 29, 33, 35, 41.

10. Let
$$f(x) = \begin{cases} 0, & x = 0 \\ e^{-1/x^2}, & x \neq 0 \end{cases}$$
it is known that $f^{(n)}(0) = 0$ for all n. Verify this for $f'(0)$ and $f''(0)$.

11. Section 10.9: Problems 7, 9, 17, 19, 33, 41, 42, 50(a).

12. Section 10.10: Problems 10, 27, 35, 37, 43, 46, 51, 64, 66.