Homework # 15 Final Answers

Section 11.8

7. $I = (-\infty, \infty)$, $R = \infty$

8. $I = \{0\}$, $R = 0$

9. $I = [-4, 4]$, $R = 4$

13. $I = [-2, 2)$, $R = 2$

19. $I = (-\infty, \infty)$, $R = \infty$

23. $I = \{\frac{1}{2}\}$, $R = 0$

25. $I = [\frac{3}{5}, 1]$, $R = \frac{1}{5}$

Section 11.9

Didn't ask for R here

3. $\frac{1}{1+x} = \sum_{n=0}^{\infty} (-1)^n x^n$

and $I = (-1, 1)$

4. $\frac{5}{1-4x^2} = 5 \sum_{n=0}^{\infty} 4^n \cdot x^{2n}$

and $I = (-\frac{1}{2}, \frac{1}{2})$

5. $\frac{2}{3-x} = 2 \sum_{n=0}^{\infty} \frac{x^n}{3^{n+1}}$

and $I = (-3, 3)$

7. $\frac{x^2}{x^4+16} = \sum_{n=0}^{\infty} \frac{(-1)^n x^{4n+2}}{16^{n+1}}$

and $I = (-2, 2)$

Note: Remember GST automatically gives Diverge at endpoints.

↳ That's very helpful!