

## Homework #17 Final Answers

### Section 11.10

35. 
$$\sum_{n=0}^{\infty} \frac{(-1)^n x^{4n+2}}{2n+1}$$

or  $4^n$

37. 
$$\sum_{n=0}^{\infty} \frac{(-1)^n 2^{2n} x^{2n+1}}{(2n)!}$$

40. 
$$\sum_{n=0}^{\infty} \frac{(-1)^n x^{3n+5}}{n+1}$$

54. 
$$\sum_{n=0}^{\infty} \frac{(-1)^n x^{4n+5}}{(2n+1)!(4n+5)} + C$$

56. 
$$\sum_{n=0}^{\infty} \frac{(-1)^n x^{4n+3}}{(2n+1)(4n+3)} + C$$

73. 
$$e^{-x^4}$$

74. 
$$\frac{\sqrt{3}}{2}$$

76. 
$$e^{3/5}$$

77. 
$$\frac{\sqrt{2}}{2}$$

78. 
$$\frac{1}{2}$$

79. 
$$e^3 - 1$$

### Review Section

38a. Run Ratio Test  $L = 0 < 1$

b. Fill Explanation

41. 
$$I = [-6, 2)$$

$$R = 4$$

42. 
$$I = (-\infty, \infty)$$

$$R = \infty$$