

Section 8.1 problems.

Problem 6 solution:

$$x - \left(\frac{1}{6}\right)x^3 + \left(\frac{1}{120}\right)x^5 + \dots$$

Problem 8 solution:

$$1 - \left(\frac{\sin 1}{2}\right)x^2 + \left(\frac{(\cos 1)(\sin 1)}{24}\right)x^4 + \dots$$

Section 8.2 problems.

Problem 4 solution:

$$[2, 4]$$

Problem 12 solution:

$$x - \left(\frac{2}{3}\right)x^3 + \left(\frac{2}{15}\right)x^5 + \dots$$

Problem 18 solution:

$$\sum_{k=0}^{\infty} \frac{(-1)^k}{(2k)!} x^{2k} = \cos x$$

Problem 26 solution:

$$\sum_{k=4}^{\infty} \frac{a_{k-3}}{k} x^k$$

Problem 32 solution:

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