

**Problem 28**

Determine the  $a_n$  so that the equation

$$\sum_{n=1}^{\infty} n a_n x^{n-1} + 2 \sum_{n=0}^{\infty} a_n x^n = 0$$

is satisfied. Try to identify the function represented by the series  $\sum_{n=0}^{\infty} a_n x^n$ .