EXERCISE ONE Consider the power series

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

Compute the product $g(x)g(x)$.
EXERCISE TWO Consider the function

$$f(x) = \frac{x}{1 - x^2}.$$

Find the power series representing f and a power series representing a primitive function of f.