

A Math Problem

1 The Problem

Find the coefficient of x^{100} in the Taylor expansion of

$$\frac{1}{x^{41} - x^{40} - x^{36} + x^{35} - x^{31} + x^{30} + x^{26} - x^{25} - x^{16} + x^{15} + x^{11} - x^{10} + x^6 - x^5 - x + 1}.$$