If \( x = a_1 a_2 a_3 \cdots = \frac{a_1}{3} + \frac{a_2}{3^2} + \frac{a_3}{3^3} + \cdots \) is a point in \( S \), what can you say anything about the values of \( a_1, a_2, a_3, \) etc?

What is the ternary expansion for the point \( f(x) = 3x \)?