ON THE UNIQUENESS OF THE SOLUTION OF SOME POLYNOMIAL EQUATIONS

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Problem. Let n > 1 be an integer. Let $k_j > 1$ for each j = 1, 2, ..., n. Show that the equation

$$\prod_{j=1}^{n} (1 - x^{k_j}) = 1 - x.$$

has exactly one solution in the interval (0, 1).

Proposed solution.

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