MORE EXERCISES RELATED TO `history01.pdf`

8.   Use the Method of False Position to approximate the real root of $p(x) = x^3 - 6x - 1$ over the interval $[0, 1]$ up to (say) four decimal places. Start with the observation that $p(0) = -1 < 0 < 1 = p(1)$; the procedure outlined in `history01c.program.pdf` provides an iterative method for finding successive approximations to the root.

9.   Same problem for $p(x) = x^3 - 2$ over the interval $[1, 2]$.

10.   Let $n \geq 2$ be an integer, and let $0 < k < 2^n$. Explain why $k/2^n$ has an Egyptian fraction expansion in which the denominator for each summand is a power of 2. [*Hint:*   Look at the base 2 expansion of k.]