

Algorithm Design
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Solution of Exercise C-13.1

Suppose that algorithm A makes at most $c \log n$ calls to the choose method. Create a deterministic version A_i of A for every possible outcome of these calls, and run A_i to see if it accepts the given input. If one of the A_i 's accepts, then we accept the input. Otherwise, we reject it. If A runs nondeterministically in $p(n)$ steps, then this deterministic version of A will run in $p(n)2^{c \log n} = p(n)n^c$ steps, which is a polynomial.