```
program randtest;
var seed: double;
    i: integer;
    temp: double;

function random(var seed: double): double;
(* return a random double precision real
 * between 0 and 1.  Update parameter seed
 *)
const
   a = 16807.0;        (* multiplier *)
   m = 2147483647.0;  (* modulus *)
     (* on the VAX, this must be 2147483647.0D0 *)
   q = 127773.0;      (* m div a *)
   r = 2836.0;        (* m mod a *)
var
   lo, hi, test: double;
begin
   hi := trunc(seed/q);
   lo := seed - q*hi;
   test := a*lo - r*hi;
   if test > 0.0 then
      seed := test
   else
      seed := test + m;
   random := seed/m
end; (* random *)

begin
   seed := 1.0;
   for i := 1 to 100000 do
      temp := random(seed);
   writeln('Seed:', seed:18:6, ', should be 46831694.000000');
   (* here are some sample values *)
   for i := 1 to 20 do
      writeln('Random real:',random(seed):20:17,
          ', Seed:', seed:12:0);
   writeln('Th-th-th-th-that''s-all-folkes!')
end.

Seed:   46831694.000000, should be 46831694.000000
Random real: 0.52213028842682496, Seed:  1121266256
Random real: 0.44375758964743350, Seed:   952962167
Random real: 0.23380920441532937, Seed:   502101443
Random real: 0.63129860844057917, Seed:  1355703438
Random real: 0.23571206081458929, Seed:   506187796
Random real: 0.61260611080220251, Seed:  1315561605
Random real: 0.07090425261804101, Seed:   152265723
Random real: 0.68777375141520691, Seed:  1476982884
Random real: 0.41344003538295626, Seed:   887855715
Random real: 0.68667468134624632, Seed:  1474622649
Random real: 0.94136938636254952, Seed:  2021575363
Random real: 0.59527659537050714, Seed:  1278346754
Random real: 0.81373839211358612, Seed:  1747489890
Random real: 0.50115625304223799, Seed:  1076224858
Random real: 0.93314488089324199, Seed:  2003913372
Random real: 0.36601317271870243, Seed:   786007303
Random real: 0.58339388323174501, Seed:  1252828824
Random real: 0.10099547593900723, Seed:   216886133
Random real: 0.43096410689454717, Seed:   925488372
Random real: 0.21374457665427801, Seed:   459012983
Th-th-th-th-that's-all-folkes!
```