
```
%This program is designed to find the smallest positive real number
%recognizable to matlab
%program created by Jason Sayre on 02/04/2018
MatError = 1 %initial test point
while 0 + MatError > 0 && MatError ~=0 %when test point +0 is greater
    than 0 and not 0 the loop runs
    MatOld = MatError ;%stores previous value that is > 0 in a
    seperate variable to avoid getting 0 at the end of the loop
    MatError = MatError/2 ;%divides test point by 2 and re-stores it
    in the variable
end

fprintf('The smallest positive real number recognizable by matlab is:
\n')
disp(MatOld)

MatError =

    1

The smallest positive real number recognizable by matlab is:
    4.940656458412465e-324
```

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