```
clc
clear all
close all
% decimal to binary conversion
%2017KUCP1017
%Tanuj Mehta
% File Name: tanuj_dec2bin.m
%num=input('Enter a Number to find number of bits used and show its binary code\n'
num=16;
bits=log2(num);
if(rem(bits,1)==0)
   bits=ceil(bits)+1
else
       bits=ceil(bits)
end
bin1=zeros(1,bits);
for i=bits:-1:1
   bin1(1,i)=rem(num,2);
   num=floor(num/2);
end
bin1
*OUTPUT-----
bits =
    5
bin1 =
    1
          0
              0
                   0
                         0
```

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