```
LAB 6
choice = menu('Options','RMS
                                                   disp('G MEAN')
Value','A MEAN','G MEAN','H MEAN');
                                                   as = []
                                                   prompt = {'Enter the number
                                           of numbers'}
switch choice
                                                   title = 'Number'
   case 1
                                                   answer =
                                           inputdlg(prompt,title)
        disp('RMS Value')
                                                   n = str2num(answer{1});
        as = []
                                                   prompt2 = {'Enter the
        prompt = {'Enter the number
                                           number'}
of numbers'}
                                                   title2 = 'Numbers'
       title = 'Number'
                                                   r = [];
        answer =
                                                   for i = 1:n
inputdlg(prompt, title)
                                                       answer2 =
        n = str2num(answer{1});
                                           inputdlg(prompt2, title2);
       prompt2 = {'Enter the
number'}
                                           str2num(answer2{1});
        title2 = 'Numbers'
                                                       r(1,i) = v;
        r = [];
                                                        %clear answer2
        for i = 1:n
                                                        %clear v
            answer2 =
                                                   end
inputdlg(prompt2,title2);
                                                   g mean(r,n)
            \nabla =
str2num(answer2{1});
                                               case 4
            r(1,i) = v;
            %clear answer2
            %clear v
                                                   disp('H MEAN')
                                                   as = []
        end
        rms(r,n);
                                                   prompt = {'Enter the number
                                           of numbers'}
                                                   title = 'Number'
   case 2
                                                   answer =
                                           inputdlg(prompt, title)
        disp('A MEAN')
                                                   n = str2num(answer{1});
        as = []
                                                   prompt2 = {'Enter the
        prompt = {'Enter the number
                                           number'}
of numbers'}
                                                   title2 = 'Numbers'
       title = 'Number'
                                                   r = [];
        answer =
                                                   for i = 1:n
inputdlg(prompt, title)
                                                       answer2 =
        n = str2num(answer{1});
                                           inputdlg(prompt2,title2);
        prompt2 = {'Enter the
                                                       v =
number'}
                                           str2num(answer2{1});
        title2 = 'Numbers'
                                                       r(1,i) = v;
        r = [];
                                                       %clear answer2
        for i = 1:n
                                                       %clear v
            answer2 =
                                                   end
inputdlg(prompt2,title2);
                                                   h mean(r, n)
            \nabla =
str2num(answer2{1});
                                               otherwise
            r(1,i) = v;
            %clear answer2
            %clear v
                                                   error('thank you')
        end
        avg(r,n);
                                           end
```

```
%RMS Value function
                                              OUTPUT-
                                              final_lab6
function [] = rms(r,n)
    sum = 0;
                                              RMS Value
    for i = 1:n
        sum = sum + (r(1,i))^2;
        %disp(sum)
    end
                                              as =
    r m s = sqrt((sum)*(1/n));
    disp('rms is')
    disp(r m s)
end
                                                 []
%A MEAN Function
function [] = avg(r,n)
   sum = 0;
    for i = 1:n
                                              prompt =
        sum = sum + r(1, i);
        %disp(sum)
    end
    amean = sum/n;
                                               1×1 <a href="matlab:helpPopup cell"
    disp('arithmetic mean is')
                                              style="font-weight:bold">cell</a> array
    disp(amean)
end
%G MEAN Function
                                                {'Enter the number of numbers'}
function [] = g_mean(r,n)
    mul = 1;
    for i = 1:n
        mul = mul*r(1,i);
        %disp(sum)
                                              title =
    end
    gmean = (mul)^(1/n);
    disp('geometric mean is')
    disp(gmean)
                                                'Number'
end
%H MEAN Function
function [] = h mean(r,n)
                                              answer =
    sum = 0;
    for i = 1:n
        sum = sum + 1/(r(1,i));
        %disp(sum)
                                               1×1 <a href="matlab:helpPopup cell"
    end
                                              style="font-weight:bold">cell</a> array
    hmean = n/sum;
    disp('Harmonic mean is')
    disp(hmean)
end
                                                {'5'}
```

prompt2 =	{'Enter the number of numbers'}
1×1 <a href="matlab:helpPopup cell" style="font-weight:bold">cell</a> array	title =
{'Enter the number'}	'Number'
title2 =	answer =
'Numbers'	1×1 <a href="matlab:helpPopup cell" style="font-weight:bold">cell</a> array
rms is	
3.3166	{'5'}
diary off	
final_lab6	prompt2 =
A_MEAN	
as =	1×1 <a href="matlab:helpPopup cell" style="font-weight:bold">cell</a> array
[]	{'Enter the number'}
prompt =	title2 =
1×1 <a href="matlab:helpPopup cell" style="font-weight:bold">cell</a> array	'Numbers'

arithmetic mean is	
3	{'5'}
diary off	
final_lab6	prompt2 =
G_MEAN	
	1×1 <a <="" href="matlab:helpPopup cell" td=""></a>
as =	style="font-weight:bold">cell array
	(I Fint out the annual boul)
	{'Enter the number'}
	title2 =
prompt =	titie2
	'Numbers'
1×1 <a href="matlab:helpPopup cell" style="font-weight:bold">cell</a> array	
,	geometric mean is
{'Enter the number of numbers'}	2.6052
	diary off
title =	final_lab6
	H_MEAN
'Number'	
	as =
answer =	0
1×1 <a <="" href="matlab:helpPopup cell" td=""><td></td></a>	
style="font-weight:bold">cell array	prompt =

prompt =

```
'Numbers'
1×1 <a href="matlab:helpPopup cell"
style="font-weight:bold">cell</a> array
                                                      Harmonic mean is
                                                        2.1898
  {'Enter the number of numbers'}
                                                      diary off
title =
  'Number'
answer =
1×1 <a href="matlab:helpPopup cell"
style="font-weight:bold">cell</a> array
 {'5'}
prompt2 =
1×1 <a href="matlab:helpPopup cell"
style="font-weight:bold">cell</a> array
  {'Enter the number'}
title2 =
```