Assignment 9 Ivani Patel WSU ID- 11809154

```
Editor - C:\Users\ivani\OneDrive\Documents\MATLAB\hw9.m
    ass6.m × hw9.m × +
           integrand=@(x) \sin(10/x)*100/x;
  2
           exact= -18.79829683678703;
  3
           npairs=1:2;
  4
           npts=2*npairs+1;
  5
           G1=gauss2pts(integrand,1,3);
  6
           pdG1=100*abs((G1-exact)/exact);
  7
           disp([G1,pdG1]);
  8
  9
 10
           integrand=@(x) \sin(10/x)*100/x;
           exact= -18.79829683678703;
 11
 12
           npairs=1:3;
 13
           npts=3*npairs+1;
 14
           G2=gauss3pts(integrand,1,3);
 15
           pdG2=100*abs((G2-exact)/exact);
 16
           disp([G2,pdG2]);
 17
 18
 19
           integrand=@(x) \sin(10/x)*100/x;
 20
           exact= -18.79829683678703;
 21
           npairs=1:4;
 22
           npts=4*npairs+1;
 23
           G3=gauss4pts(integrand,1,3);
 24
           pdG3=100*abs((G3-exact)/exact);
 25
           disp([G3,pdG3]);
 26
 27
 28
           integrand=@(x) \sin(10/x)*100/x;
 29
           exact= -18.79829683678703;
 30
           npairs=1:5;
 31
           npts=5*npairs+1;
 32
           G5=gauss5pts(integrand,1,3);
 33
           pdG5=100*abs((G5-exact)/exact);
 34
           disp([G5,pdG5]);
 35
```

Command Window

New to MATLAB? See resources for <u>Getting Started</u>.

```
>> hw9
21.5897 214.8490
-8.3311 55.6815
-21.1645 12.5872
-19.7722 5.1808
```