

Sheet1

file contents	output notes
<pre>function plotn(n) x = linspace(0,1,n); y = x.^n; plot(x,y,'b-s',... 'MarkerSize',15,'LineWidth',2,... 'MarkerEdgeColor','k','MarkerFaceColor','g'); xlabel('x'); ylabel('y'); title('plotme example');</pre>	
<pre>function f0(x,y) z = x + y; disp(z)</pre>	
<pre>function z = f0(x,y) z = x + y;</pre>	
<pre>function [out1,out2] = f2(x,y) out1 = x + y; out2 = x * y;</pre>	
<pre>function [approx, exact, err] = approxpi(n); % approximate pi using Archimidis Example radius = 0.5; exact = pi; approx = perimeter(radius,n); err = exact-approx; theta = linspace(0,2*pi,n+1); x = cos(theta); y = sin(theta); c = err*ones(size(x)); figure(n); fill(x,y,c); title([num2str(n) '-sided polygon']); text(0,0,['error = ' num2str(err)]); axis off; theta0 = linspace(0,2*pi,100); x = cos(theta0); y = sin(theta0); hold on; plot(x,y,'r-','LineWidth',3); % subfunction: only called withing approxpi() function p = perimeter(radius,n) p = n*2*radius*sin(pi/n);</pre>	

Sheet1

<pre>function runapproxpi() flag =1; while(flag>0) disp('-----') n = input('Enter the number of sides (less than 3 to exit): '); if(n >= 3) [approx,ex,err]=approxpi(n); disp([num2str(n) '-sided error: ' ... num2str(err) ' (' num2str(approx) ' ~ ' num2str(ex) ')]') disp('-----') else flag = 0; end end</pre>	
<pre>for n=1:20 disp(n) end</pre>	
<pre>for n=1:2:20 disp(n) end</pre>	
<pre>for n=20:-1:1 disp(n) end</pre>	
<pre>Nlist=[2 7 19 88]; for n = nlist disp(n) end</pre>	
<pre>A=rand(5) [I,J]=find(A<0.02) [I,J]=find(A>0.8)</pre>	
<pre>break</pre>	
<pre>return</pre>	
<pre>error('my own help message')</pre>	
<pre>pause</pre>	
<pre>find(X)</pre>	
<pre>all(X)</pre>	
<pre>any(X)</pre>	
<pre>isvarname(str)</pre>	
<pre>mystr = 'a = 5;' eval(mystr);</pre>	