

2D PLOTTING IN MATLAB

FUNCTION <code>plot()</code>	
<code>plot(y)</code>	plots the columns of <code>y</code> versus the index of each value
<code>plot(x,y)</code>	plots vector <code>y</code> versus vector <code>x</code>
<code>plot(x,y,LineStyle)</code>	plots vector <code>y</code> versus vector <code>x</code> with line specification <code>LineStyle</code>
<code>plot(x1,y1,LineStyle1,x2,y2,LineStyle2,...)</code>	plots each vector <code>y</code> versus vector <code>x</code> on the same axes with line specifications <code>LineStylecn</code>
<code>plot(x1,y1,LineStyle,'PropertyName',Propertyvalue)</code>	manipulates plot characteristics by setting lineseries properties
LINE SPECIFICATION (Table 1, 2, 3)	OPTIONS
eg <code>'-or'</code>	<code>grid on / grid off</code>
eg <code>'-.m'</code>	<code>xlabel('name of label x')</code>
PROPERTIES	<code>ylabel('name of label y')</code>
<code>'LineWidth'</code>	<code>title('title of graph')</code>
<code>'MarkerSize'</code>	<code>axis([xmin,xmax,ymin,ymax])</code>
<code>'MarkerEdgeColor'</code>	<code>axis('equal')</code>
<code>'MarkerFaceColor'</code>	<code>axis([xmin,xmax,ymin,ymax], 'square')</code>
	<code>legend('first', 'second')</code>
	<code>hold on / hold off</code>

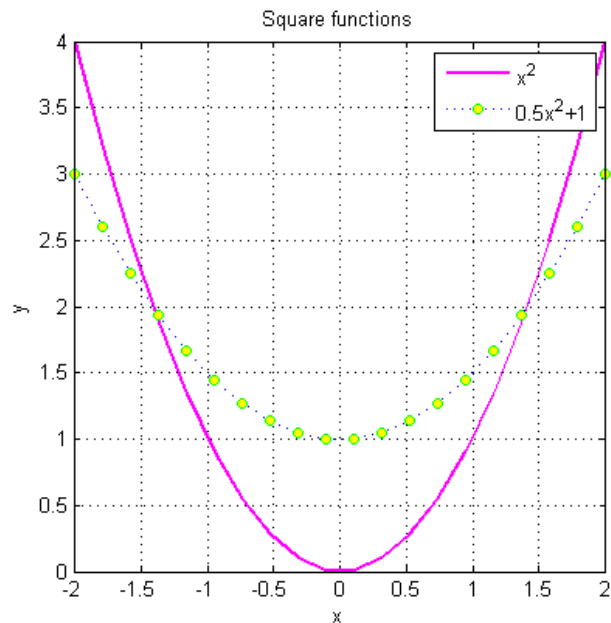
-	Solid line
--	Dashed line
:	Dotted line
-.	Dash-dot line

+	plus	d	diamond
o	circle	^	triangle – type 1
*	star	v	triangle – type 2
.	dot	>	triangle – type 3
x	cross	<	triangle – type 4
s	square	h	hexagram

r	red
g	green
b	blue
c	cyan
m	magenta
y	yellow

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x=linspace(-2,2,20);
y=x.^2;
plot(x,y,'-m',
'LineWidth',2)
hold on
y2=0.5.*x.^2+1;
plot(x,y2,':o','MarkerSize'
,5,'MarkerEdgeColor','g',
'MarkerFaceColor','y')
grid on
axis('equal')
axis([-2,2,0,4])
xlabel('x')
ylabel('y')
title('Square functions')
legend('x^2','0.5x^2+1')
```



FUNCTION <code>ezplot()</code>	
<code>ezplot(fun)</code>	plots the expression $f = f(x)$ over the default domain $2\pi < x < 2\pi$
<code>ezplot(fun,[xmin,xmax])</code>	plots $f = f(x)$ over the specified domain
<code>ezplot(f,[xmin, xmax, ymin, ymax])</code>	plots $f = f(x)$ over the specified domain
EXAMPLES	
<code>ezplot('y=x+2')</code>	<code>ezplot('x^2+y^2=10')</code>
<code>h=ezplot('y=x+2',[0,5])</code>	
<code>set(h,'Color','c','LineWidth',2,'Marker','o','LineStyle',':')</code>	