```
% kirajzolunk 4 pontot
x=[-1, 0, 1, 2];
y=[2, 1, 1.5, 3];
plot(x,y,'<r');
```

%Elemi függvények

```
x=linspace(-5,5);
y=x.^2;
z=x.^3;
a=x.^4;
b=x.^5;
figure;
plot(x,y,x,z,x,a,x,b);
axis equal;
axis([-2 2 -4 4])

x = -2:0.1:3;
y = 3*(x+1).^3 -3*(x+1)+2;
figure;
plot(x,y);
axis([-2 1 0 8]);
axis equal;
ax = gca;
ax.XAxisLocation  = 'origin';
ax.YAxisLocation  = 'origin';
grid on;

x=linspace(-5,5,50);
y=x.^2;
z=(x-2).^2+3;
a=2*(x-2).^2+3;
figure;
plot(x,y,x,z,x,a);
axis([-5 5 0 10]);
axis equal;

x=linspace(0,4);
y=x.^2;
z=sqrt(x);
a=x;
figure;
plot(x,y,x,z,x,a);
axis([0 4 0 4]);
axis equal;
```

```
x=linspace((-2)*pi,2*pi,200);
y=cos(x);
z=2*cos(x);
a=cos(2*x);
figure;
plot(x,y,x,z,x,a);
axis equal;

x=linspace(0.1,2*pi);
y=sin(3*x)./x;
z=cos(x);
figure; plot(x,y,'g',x,z,'k-.')
axis equal;
ax=gca;
ax.XAxisLocation = 'origin';
ax.YAxisLocation = 'origin';

x=linspace(-1,1);
y=asin(x);
z=acos(x);
figure; plot(x,y,'k',x,z,'b')
axis equal;
legend('asin','acos');

x=linspace(-2,3);
y=2.^x;
z=4.^x;
w=exp(x);
figure; plot(x,y,x,z,x,w);
axis([-2 2 0 4]);
axis equal;
ax=gca;
ax.XAxisLocation='origin';
ax.YAxisLocation='origin';
legend('2.^x','4.^x','exp(x)')

x=linspace(0.1,4);
y=log2(x);
z=log(x);
w=log10(x);
figure; plot(x,y,x,z,x,w);
axis([0 4 -2 2]);
axis equal;
ax=gca;
ax.XAxisLocation='origin';
ax.YAxisLocation='origin';
legend('log2(x)','ln','log10(x)')
```

```
x=linspace(0.1,6,50);
y=2.^x;
z=log2(x);
a=x;
figure;
plot(x,y,x,z,x,a);
axis([0 4 -1 5])

x=linspace(-5,5);
y = x.^3 - 3*x.^2 + 2*x + 2;
figure; plot(x,y);
axis([-1 3 -2 5]);
axis equal;
ax=gca;
ax.XAxisLocation='origin';
ax.YAxisLocation='origin';
grid on;
```