```matlab
%Subplots

%Log graphs


%Bar graphs

x = [1,3,5,7,4,7,9]
bar(x);
figure(2);

%Pie Charts
figure(3);
pie(x);

%Curve Fitting

x = 0 : 1 :5;
y = [15,10,9,6,2,0];

polyfit(x,y,1)
%polyfit returns the coefficients that best fit the function
coef = [-2.9142, 14.2857];
fitterd_data = polyval(coef, x);

%Exercises
t = 0 : 0.01: (2*pi);
x = cos(t) + sin(t);

%cardiod pick up polar pattern
r = 3 + (3*sin(t));

figure(4);
subplot(1,2,1);
plot(x);
axis([-pi pi -1.5 1.5])

subplot(1,2,2);
polarplot(x);

figure(5);
x = -5:1:4;
y = [-506.6, -262.88, -99.43, -36.78, 6.2, 7.11, 16.6, 51, 183,
 427.97];
j = polyfit(x,y, 3);
plot(j);


x =

      1      3      5      7      4      7      9
```
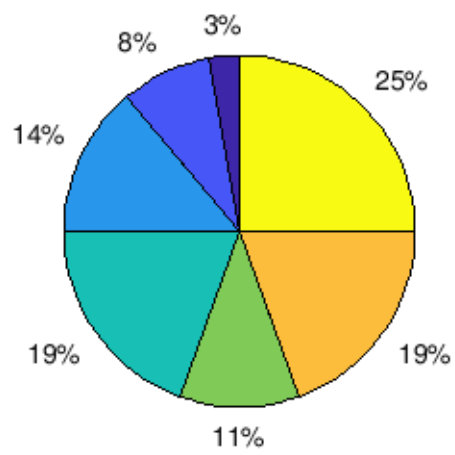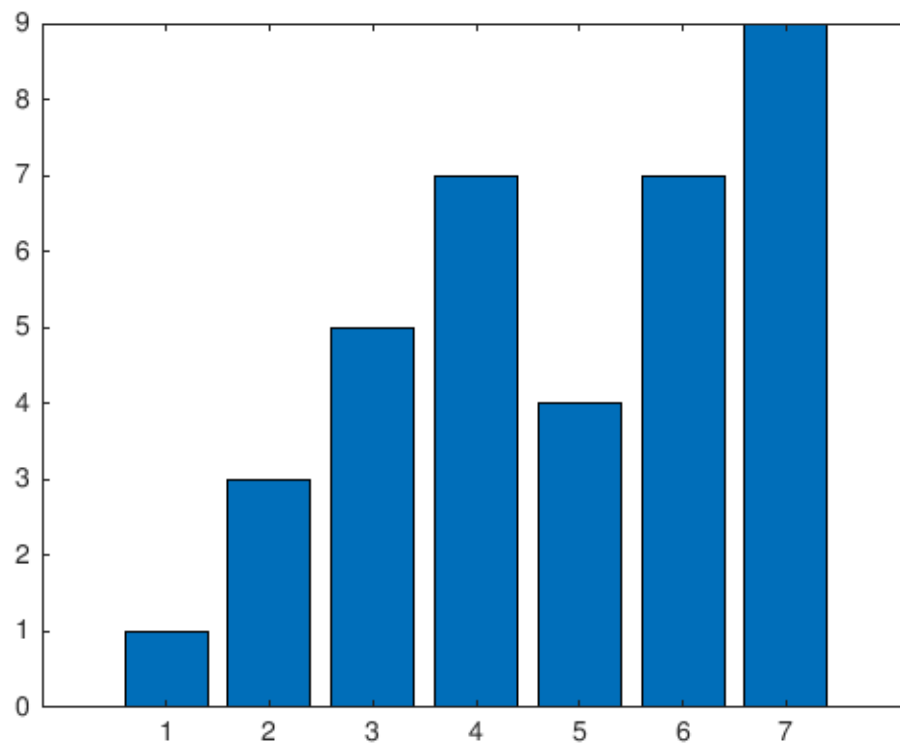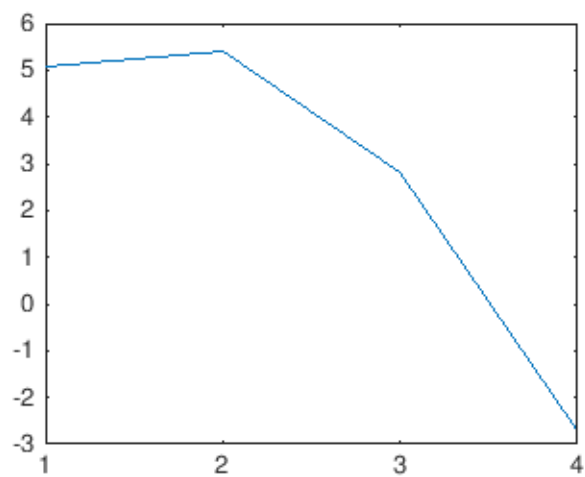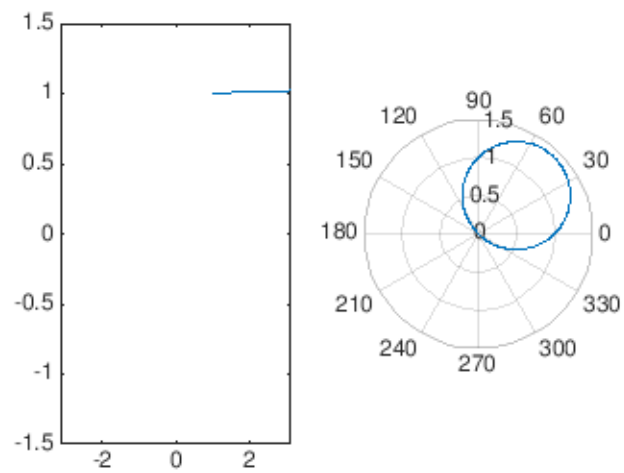
```
ans =

   -2.9143    14.2857
```

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