1. (1)直接输入元素法

```
>> a=pascal(10)

a =

     1     1     1     1     1     1     1     1     1     1
     1     2     3     4     5     6     7     8     9    10
     1     3     6    10    15    21    28    36    45    55
     1     4    10    20    35    56    84   120   165   220
     1     5    15    35    70   126   210   330   495   715
     1     6    21    56   126   252   462   792  1287  2002
     1     7    28    84   210   462   924  1716  3003  5005
     1     8    36   120   330   792  1716  3432  6435 11440
     1     9    45   165   495  1287  3003  6435 12870 24310
     1    10    55   220   715  2002  5005 11440 24310 48620
```

(2)外部数据导入法

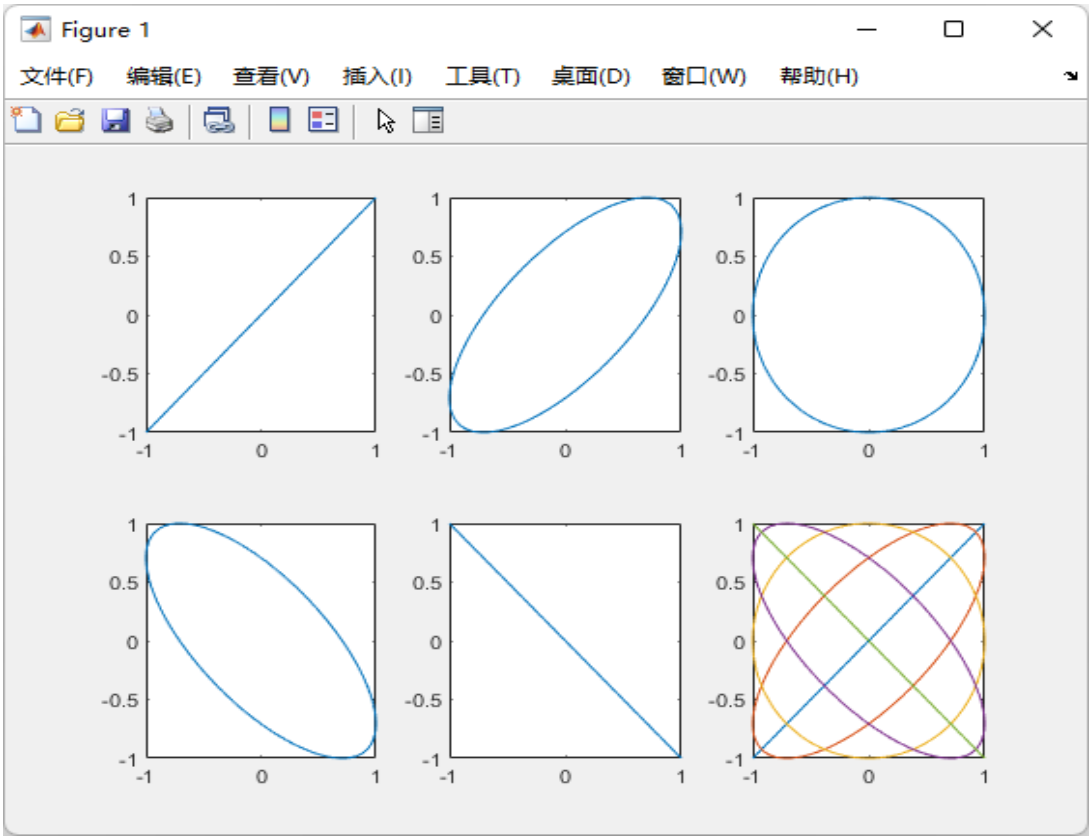
```
>> a=load('C:\Users\makabaka\Desktop\pascal.txt')

a =

     1     1     1     1     1     1     1     1     1     1
     1     2     3     4     5     6     7     8     9    10
     1     3     6    10    15    21    28    36    45    55
     1     4    10    20    35    56    84   120   165   220
     1     5    15    35    70   126   210   330   495   715
     1     6    21    56   126   252   462   792  1287  2002
     1     7    28    84   210   462   924  1716  3003  5005
     1     8    36   120   330   792  1716  3432  6435 11440
     1     9    45   165   495  1287  3003  6435 12870 24310
     1    10    55   220   715  2002  5005 11440 24310 48620
```

（3）excel 法

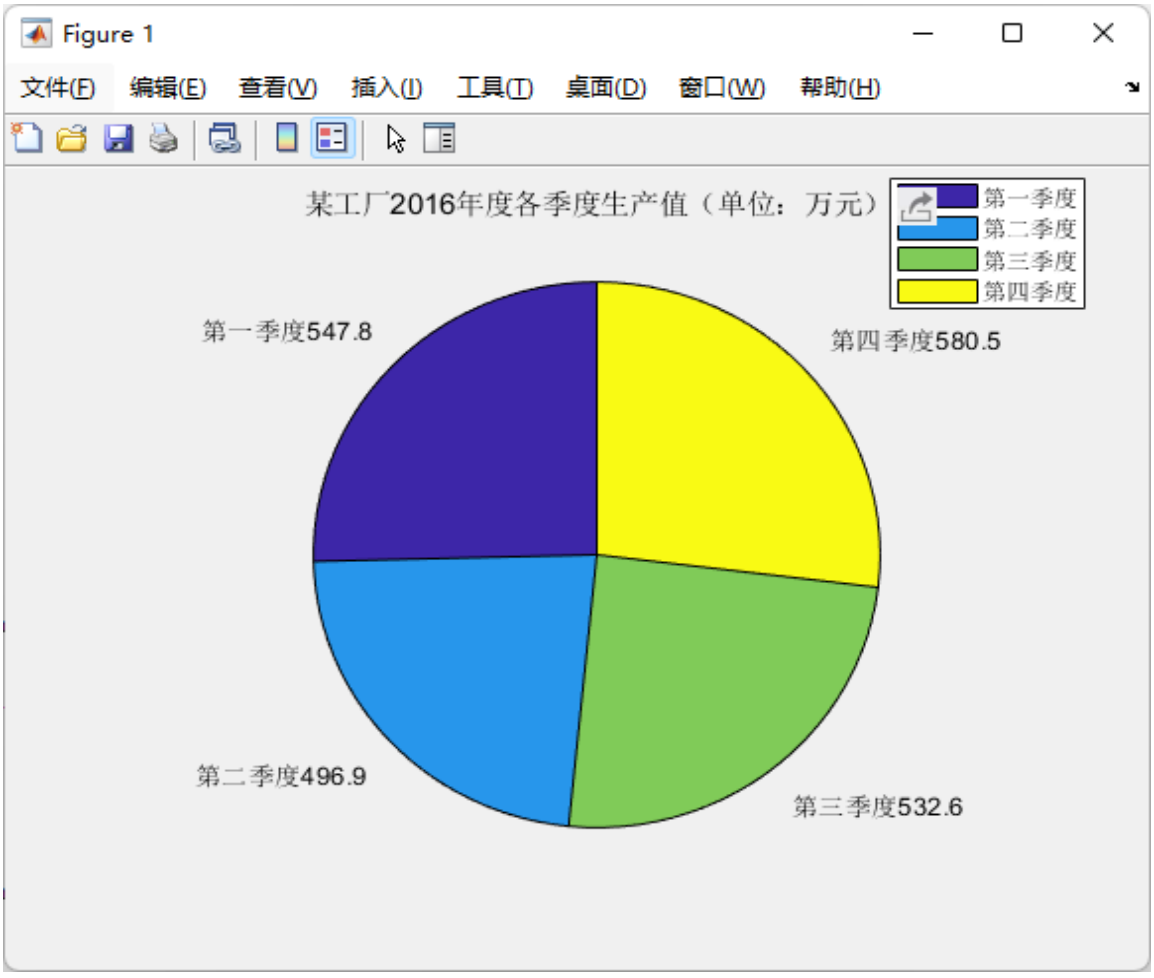
```
>> a=xlsread('C:\Users\makabaka\Desktop\pascal.xlsx')

a =

     1     1     1     1     1     1     1     1     1     1
     1     2     3     4     5     6     7     8     9    10
     1     3     6    10    15    21    28    36    45    55
     1     4    10    20    35    56    84   120   165   220
     1     5    15    35    70   126   210   330   495   715
     1     6    21    56   126   252   462   792  1287  2002
     1     7    28    84   210   462   924  1716  3003  5005
     1     8    36   120   330   792  1716  3432  6435 11440
     1     9    45   165   495  1287  3003  6435 12870 24310
     1    10    55   220   715  2002  5005 11440 24310 48620
```

2. t=0:0.01:2*pi;

```
a=1;
b=1;
n=1;
for i=1:5
    subplot(2,3,i);
    c=(i-1)*pi/4;
    x=a*sin(t);
    y=b*sin(n*t+c);
    plot(x,y);
end
for i=1:5
    subplot(2,3,6);
    x=a*sin(t);
    c=(i-1)*pi/4;
    y=b*sin(n*t+c);
    plot(x,y);
    hold on;
end
```



3. x=[547.8,496.9,532.6,580.5];
pie(x,{'第一季度'+string(x(1)),'第二季度'+string(x(2)),'第三季度'+string(x(3)),'第四季度'+string(x(4))});
legend('第一季度','第二季度','第三季度','第四季度');
title('某工厂 2016 年度各季度生产值（单位：万元）')



4. function z=f(x,y)
z=x^2+sin(x*y)+2*y;
>> f(0,0)

ans =

0

5. a=[1,1];
i=2;
while a(i)~=inf
    i=i+1;
    a(i)=a(i-2)+a(i-1);
end
i-1
a(i-1)

a=[1,1];
i=2;
while a(i)-10^16<0
    i=i+1;
    a(i)=a(i-2)+a(i-1);
end
i-1
a(i-1)

ans =

1476

ans =

1.3070e+308

ans =

78

ans =

8.9444e+15

第一个为近似表示，第二个为精确表示

6. function personal_tax=tax(x)
if(x<=5000)
    a=1;
end
if(x>5000)&&(x<=8000)
    a=2;

```
end
if(x>8000)&&(x<=17000)
    a=3;
end
if(x>17000)&&(x<=30000)
    a=4;
end
if(x>30000)&&(x<=40000)
    a=5;
end
if(x>40000)&&(x<=60000)
    a=6;
end
if(x>60000)&&(x<=85000)
    a=7;
end
if(x>85000)
    a=8;
end
switch a
    case {1}
        personal_tax=0;
    case {2}
        personal_tax=(x-5000)*0.03;
    case {3}
        personal_tax=(x-5000)*0.1-210;
    case {4}
        personal_tax=(x-5000)*0.2-1410;
    case {5}
        personal_tax=(x-5000)*0.25-2660;
    case {6}
        personal_tax=(x-5000)*0.3-4410;
    case {7}
        personal_tax=(x-5000)*0.35-7160;
    otherwise
        personal_tax=(x-5000)*0.45-15160;
end
```

```
>> tax(2000)

ans =

     0

>> tax(8000)

ans =

    90

>> tax(10000)

ans =

   290

>> tax(25000)

ans =

        2590

>> tax(35000)

ans =

        4840

>> tax(55000)

ans =

       10590

>> tax(65000)

ans =

       13840

>> tax(95000)

ans =

       25340
```