

1

```
>> A=[3 1 2;2 1 2;1 2 3]
```

A =

3	1	2
2	1	2
1	2	3

.1)

```
>> B=[1 1 -1; 2 0 1;1 0 1]
```

B =

1	1	-1
2	0	1
1	0	1

```
>> A'
```

ans =

2)

3	2	1
1	1	2
2	2	3

```
>> A'
```

ans =

3	2	1
1	1	2
2	2	3

```
>> A+B
```

ans =

3)

4	2	1
4	1	3
2	2	4

```
>> 4*A
```

4)

```
ans =
```

```
    12     4     8
     8     4     8
     4     8    12
```

```
>> A*B
```

5)

```
ans =
```

```
     7     3     0
     6     2     1
     8     1     4
```

```
>> norm(A)
```

6)

```
ans =
```

```
    5.8199
```

7)

```
>> inv(A)
```

```
ans =
```

```
    1.0000   -1.0000    0.0000  
    4.0000   -7.0000    2.0000  
   -3.0000    5.0000   -1.0000
```

2

```
function[meter, hight] = ballBounce(hight_q,times)  
hight = hight_q/2^times;  
meter = 0;  
if (times > 1)  
    meter = meter + hight_q;  
end  
times=times-1;  
while(times-2 > 0)  
    meter=meter + 2*(hight_q/2);  
    hight_q = hight_q / 2;  
    times=times-2;  
end  
meter=meter + hight_q / 2;  
end
```

```
>> [meter, hight]=ballBounce(100, 10)
```

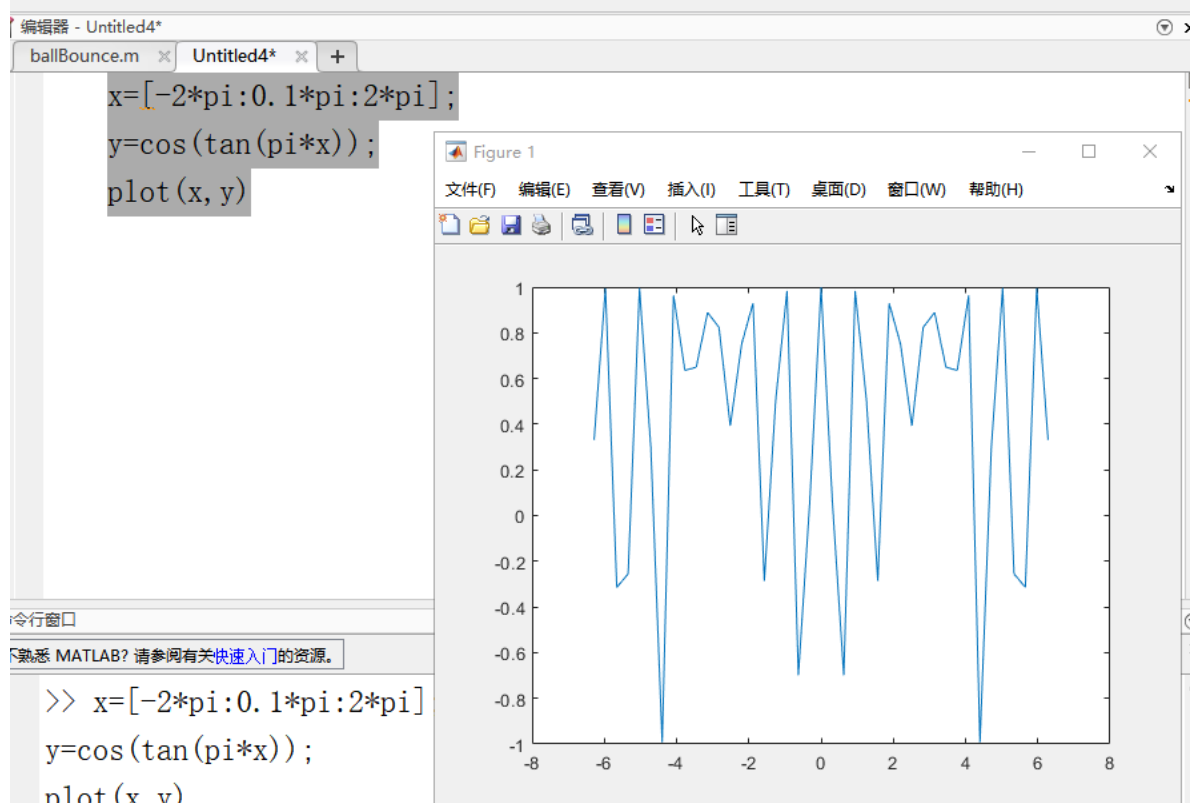
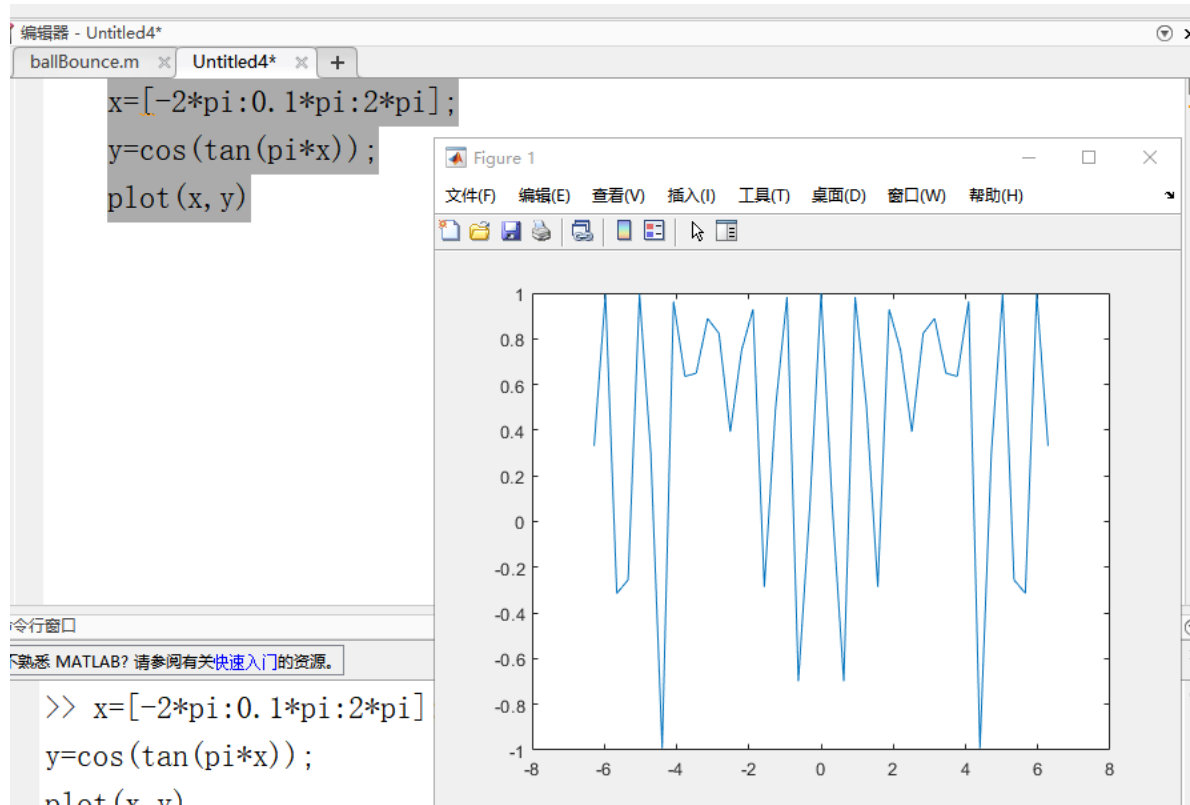
```
meter =
```

```
    290.6250
```

```
hight =
```

```
    0.0977
```

```
x=[-2*pi:0.1*pi:2*pi];
y=cos(tan(pi*x));
plot(x,y)
fplot(@(x)cos(tan(pi*x)))
```



```
x=linspace(-100,100);  
y1=x.^2;  
y2=x.^3;  
y3=x.^4;  
y4=x.^5;  
plot(x,y1,x,y2,x,y3,x,y4);  
legend({'y1=x.^2','y2=x.^3','y3=x.^4','y4=x.^5'},'Location','southwest')
```

