

你好，world!

ZTL

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## 目录

<b>1</b>	<b>你好中国</b>	<b>2</b>
1.1	Hello Beijing . . . . .	2
1.1.1	Hello Dongcheng District . . . . .	2
1.2	Hello 山东 . . . . .	2
<b>2</b>	<b>math</b>	<b>2</b>
<b>3</b>	<b>graphics</b>	<b>4</b>
<b>4</b>	<b>table</b>	<b>6</b>

# 1 你好中国

中国在 East Asia.

## 1.1 Hello Beijing

北京是 capital of China.

### 1.1.1 Hello Dongcheng District

Tian'anmen Square is in the center of Beijing

Chairman Mao is in the center of 天安门广场。

## 1.2 Hello 山东

山东大学 is one of the best university in 山东。

# 2 math

Einstein 's  $E = mc^2$ .

$$E = mc^2.$$

$$E = mc^2. \quad (1)$$

$$\sqrt{x}, \frac{1}{2}.$$

$$\sqrt{x},$$

$$\frac{1}{2}.$$

$$\sum_{i=1}^n i \quad \prod_{i=1}^n \sum_{i=1}^n i \quad \prod_{i=1}^n$$

$$\lim_{x \rightarrow 0} x^2 \quad \int_a^b x^2 dx$$

$\lim_{x\rightarrow 0}x^2\int_a^bx^2dx$

$\left(\left(\left(\left(\left(x\right)\right)\right)\right)\right)$

$\left[\left[\left[\left[x\right]\right]\right]\right]$

$\left\{\left\{\left\{\left\{\left\{x\right\}\right\}\right\}\right\}\right\}$

$\langle\langle\langle\langle\langle x\rangle\rangle\rangle\rangle\rangle$

$\left|\left|\left|\left|x\right|\right|\right|\right|$

$\left|\left|\left|\left|\left|\left|\left|x\right|\right|\right|\right|\right|\right|$

$x_1,x_2,\ldots,x_n\quad 1,2,\cdots,n\quad \vdots\quad \ddots.$

$\begin{pmatrix}a&b\\c&d\end{pmatrix}\quad \begin{bmatrix}a&b\\c&d\end{bmatrix}\quad \left\{\begin{matrix}a&b\\c&d\end{matrix}\right\}\quad \begin{vmatrix}a&b\\c&d\end{vmatrix}\quad \left\|\begin{matrix}a&b\\c&d\end{matrix}\right\|$

Marry has a little matrix  $(\begin{smallmatrix}a&b\\c&d\end{smallmatrix})$ .

$$\begin{aligned}x&=a+b+c+\\&\quad d+e+f+g\end{aligned}$$

$x=a+b+c+$

$d+e+f+g\quad (2)$

$a=b+c+d\tag{3}$

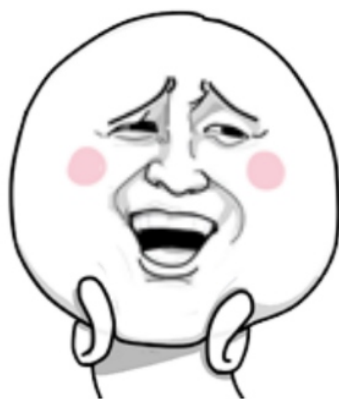
$x=y+z\tag{4}$

$$a = b + c + d \quad (5)$$

$$x = y + z \quad (6)$$

$$y = \begin{cases} -x, & x \leq 0 \\ x, & x > 0 \end{cases}$$

### 3 graphics



如图 1所示

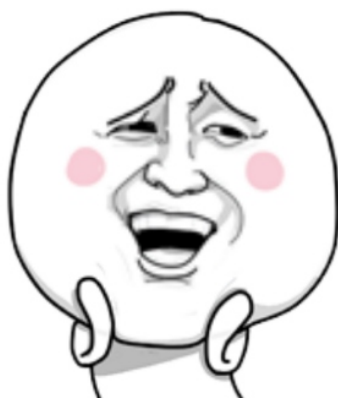


图 1: 有图有真相

## 4 table

操作系统	发行版	编辑器
Windows	MikTeX	TexMakerX
Unix/Linux	teTeX	Kile
Mac OS	MacTeX	TeXShop
通用	TeX Live	TeXworks

```

1 %Script file ball.m
2 %
3 %Purpose:
4 % This program calculates the distance traveled by a ball
5 %throw at a speciified angle "theta" and a specified velocity
6 %"vo" from a point,ignoring air friction.It calculates the angle
7 %yeileding maximun range,and also plots selected trajectories.
8 %
9 %Define variable:
10 %conv      degrees to radians conv factor
11 %grav      The gravity accel
12 %ii,jj     Loop index
13 %index     The maximum range in array
14 %maxangle  The angle that gives the maximum range
15 %maxrange  Maximum range
16 %range     ranghe for a specified angle
17 %time      Time
18 %theta     Inital angle
19 %fly_time  the totle trajectory time
20 %vo        The initial velocity
21 %vx        x-component of the initial velocity
22 %vy        y-component of the initial velocity
23 %x         x-position of ball
24 %y         y-position of ball
25 %抛球
26 conv=pi/180;

```

```

27 grav=-9.82;
28 vo=input('Enter the initial velocity:');
29
30 range=zeros(1,91);
31 %1/4      3/4
32 for ii=1:91
33     theta =ii-1;
34     vxo=vo*cos(theta*conv);
35     vyo=vo*sin(theta*conv);
36     max_time=-2*vyo/grav;
37     range(ii)=vxo*max_time;
38 end
39 % 1/4      3/4
40 fprintf('Range versus angle theta"\n');
41 for ii=1:5:91
42     theta=ii-1;
43     fprintf('%2d %8.4f\n',theta,range(ii)); % %4.2f±  , L→I
44 end
45 %1/4      L      3/4
46 [maxrange, index]=max(range);
47 maxangle = index-1;
48 fprintf('\n Max range is %8.4f at %2d degrees.\n',maxrange,maxangle);
49 %» □
50 for ii=5:10:80
51     theta=ii;
52     vxo=vo*cos(theta*conv);
53     vyo=vo*sin(theta*conv);
54     max_time=-2*vyo/grav;
55 %1/4 □ μ x,y ±
56 x=zeros(1,21);
57 y=zeros(1,21);
58 for jj=1:21
59     time=(jj-1)*max_time/20;

```

```

60         x(jj)=vxo*time;
61         y(jj)=vyo*time+0.5*grav*time^2;
62     end
63     plot(x,y, 'g');
64     if ii==5
65         hold on;
66     end
67 end
68 %  $\mu \pm^3$ 
69 title(' \bf Trajectory of Ball vs Inital Angle\theta ');
70 xlabel(' \bf\itx \rm\bf(meters) ');
71 ylabel(' \bf\ity \rm\bf(meters) ');
72 axis([0 max(range)+5 0 -vo^2/2/grav]);
73 grid on;
74 %»  $\mu \hat{L} \square$ 
75 vxo=vo*cos(maxangle*conv);
76 vyo=vo*sin(maxangle*conv);
77 max_time=-2*vyo/grav;
78 %Calculate the (x,y)
79 x=zeros(1,21);
80 y=zeros(1,21);
81 for jj=1:21
82     time=(jj-1)*max_time/20;
83     x(jj)=vxo*time;
84     y(jj)=vyo*time+0.5*grav*time^2;
85 end
86 plot(x,y, 'r', 'Linewidth',2);
87 hold off

```