附录：

Matlab代码：

for i=1:10

m=sqrt(1/4\*l(1)^2+(l(1)-l(i))^2-sqrt(l(1)^2-h^2)\*(l(1)-l(i)));

x(i)=26.25-2.5\*i;

y(i)=(0.5\*sqrt(l(1)^2-h^2)-(l(1)-l(i)))\*l(i)/m+l(1)-l(i);

z(i)=0.5\*h\*l(i)/m;

end

for i=1:11

x(i)=27.5-2.5\*i;

y(i)=(p\*sqrt(l(1)^2-h^2)-y1(i))\*l(i)/(sqrt(p^2\*l(1)^2+y1(i)^2-2\*p\*sqrt(l(1)^2-h^2)\*y1(i)))+y1(i);

z(i)=p\*h\*l(i)/(sqrt(p^2\*l(1)^2+y1(i)^2-2\*p\*sqrt(l(1)^2-h^2)\*y1(i)));

end

x1=0:0.5:25;

for i=1:length(x1)

if x1(i)<15

y1(i)=30;

else

y1(i)=75-3\*x1(i);

end

end

for i=1:length(x1)

z1(i)=0;

end

x2=x1;

y2=40-sqrt(625-x2.^2);

z2=y2+20;

h=60;

tixing;

plot3(x2,-y2,-z2,x2,y2,-z2,-x2,-y2,-z2,-x2,-y2,-z2);

plot3(x,-y,-z,'r\*',x,y,-z,'r\*',-x,-y,-z,'r\*',-x,y,-z,'r\*');

hold on;

plot3(x1,-y1,-z1,-x1,-y1,-z1,x1,y1,-z1,-x1,y1,-z1);

hold on;

for i=1:length(x)

plot3([x(i),x(i)],[-b(x(i)),-y(i)],[0,-z(i)]);

hold on;

plot3([-x(i),-x(i)],[-b(x(i)),-y(i)],[0,-z(i)]);

hold on;

plot3([x(i),x(i)],[b(x(i)),y(i)],[0,-z(i)]);

hold on;

plot3([-x(i),-x(i)],[b(x(i)),y(i)],[0,-z(i)]);

hold on;

end

plot3([25,-25],[-y(1)\*p,-y(1)\*p],[-z(1)\*p,-z(1)\*p],'k');

hold on;

plot3([25,-25],[y(1)\*p,y(1)\*p],[-z(1)\*p,-z(1)\*p],'k');

hold on;

axis equal;

figure;