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% Sample graphing program
w = 5.8;
u = .6;
r = 13/12;
g = 32.2;
guess = 60*pi/180;
accuracy = 1e-7;
f = @(theta) u*g*cos(theta) + u*r*w^2 - g*sin(theta);
theta = 0 : .01 : 180;
ff = f(theta*pi/180);
line1x = [0 180];
line1y = [0 0];
x1 = 0:20:180;
y1 = [0 0 0 0 0 0 0 0 0 0];
plot(theta,ff,'r',line1x,line1y,'k',x1,y1,'g.','MarkerSize',20);
axis([0 180 -20 50]);
set(gca,'xtick',0:20:180);
set(gca,'ytick',-20:10:50);
xlabel('theta');
ylabel('f');
ylabel('f');

```