clear all;

close all;

ht=40;

hr=3;

freq=1800e6;

c=3e8;

wavelength=c/freq;

G1=1.5;

R=-2;

figure(1);

d=[1:1:100000];

GR=2;

l=(d.^2+(ht-hr)^2).^.5;

r=(d.^2+(ht+hr)^2).^.5;

phase=2\*pi/wavelength\*(r-1);

dc=4\*ht\*hr/wavelength;

dnew=[dc:1:100000];

vec=sqrt(G1)./l+R\*sqrt(GR)./r.\*exp(phase\*sqrt(-1));

Pr=(wavelength/4/pi)^2\*(abs(vec)).^2;

loglog(10\*log10(d),10\*log10(Pr));

title('Two­Ray Model');

xlabel('Distance(m)');

ylabel('Received Power (dbm)');

grid;

figure(2);

loglog(d,Pr);

title('Two­Ray Model');

xlabel('Distance(m)');

ylabel('Received Power (dbm)');

grid;



