



JSPM's
JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING
Sr. No. 58, Handewadi Road, Hadapsar, Pune, Maharashtra 411028
Department of Electronics and Telecommunication Engineering



Code :

```
%Distance vs loss (dB) for small city for Hata Model'  
clc;  
clear all;  
close all;  
Hte=input('Enter Base Station Antena Hight (hte)');  
Hre=input('Enter Mobile Station Antena Hight(hre)');  
d= input('Enter Distance from Base Station');  
f=input('Enter The Frequency:');  
for i=1:length(d)  
    CH=0.8+((1.1*log(d))-0.7)*Hre-1.56*log(d);  
    LU=69.55+26.16*log(d)-132.82*log(Hte)-CH+(44.9-6.55*log(Hte))*log(f);  
end  
figure(1)  
plot(d,LU)  
title('Distance vs loss (dB) for small city for hata Model');  
xlabel ('Frequency(MHz)');  
ylabel('Propogation Path loss(dB)');  
grid on;  
[200 300 400 500 600 700 800 900 1000 1100]
```



JSPM's
JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING
Sr. No. 58, Handewadi Road, Hadapsar, Pune, Maharashtra 411028
Department of Electronics and Telecommunication Engineering



Output :

```
Octave
File Edit Debug Tools Window Help News
Current Directory: C:\Users\Ankit
Command Window
Enter Base Station Antena Hight (hte)100
Enter Mobile Station Antena Hight(hre)5
Enter Distance from Base Station[1 2 5 11 15 17]
Enter The Frequency:5000
ans =

    200    300    400    500    600    700    800    900   1000   1100

>> |
```

