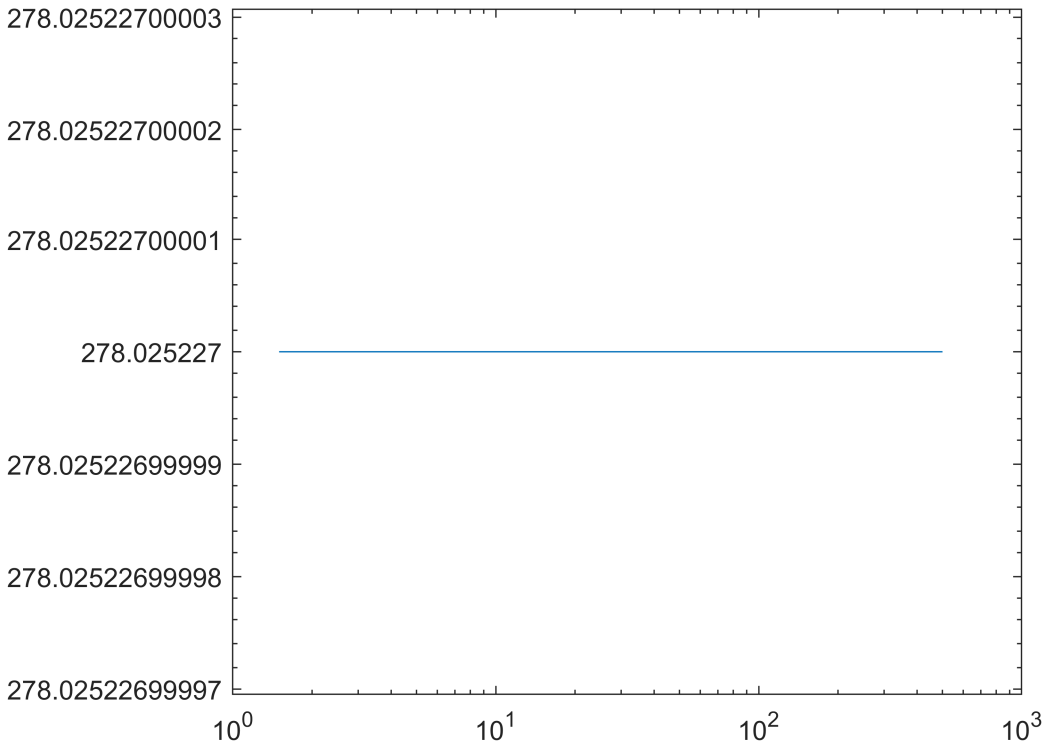
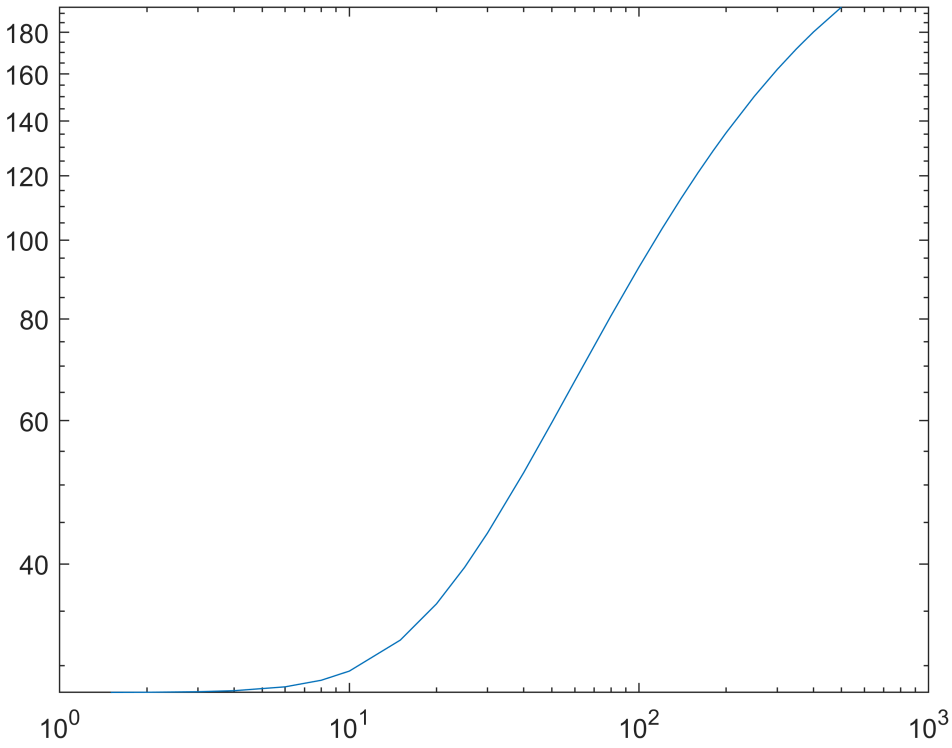
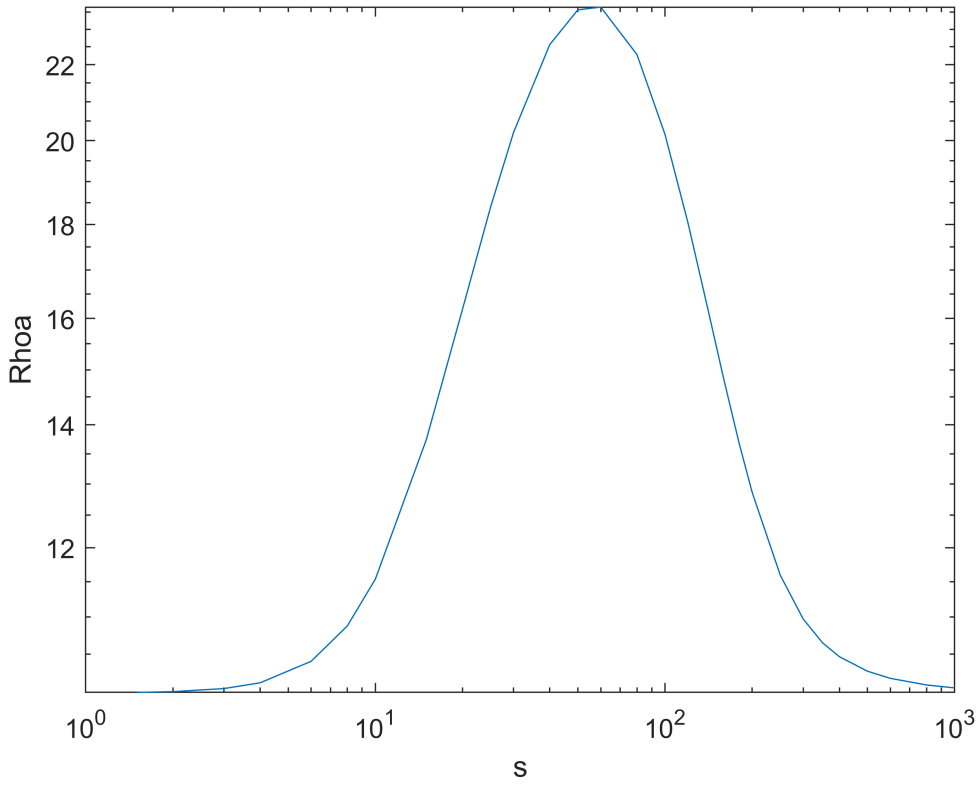
```
%18EX20030 UTKARSH JAISWAL
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832];
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835];
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500];
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
loglog(s,rhoa)
```


278.02522700003
278.02522700002
278.02522700001
278.025227
278.02522699999
278.02522699998
278.02522699997
10^0
10^1
10^2
10^3

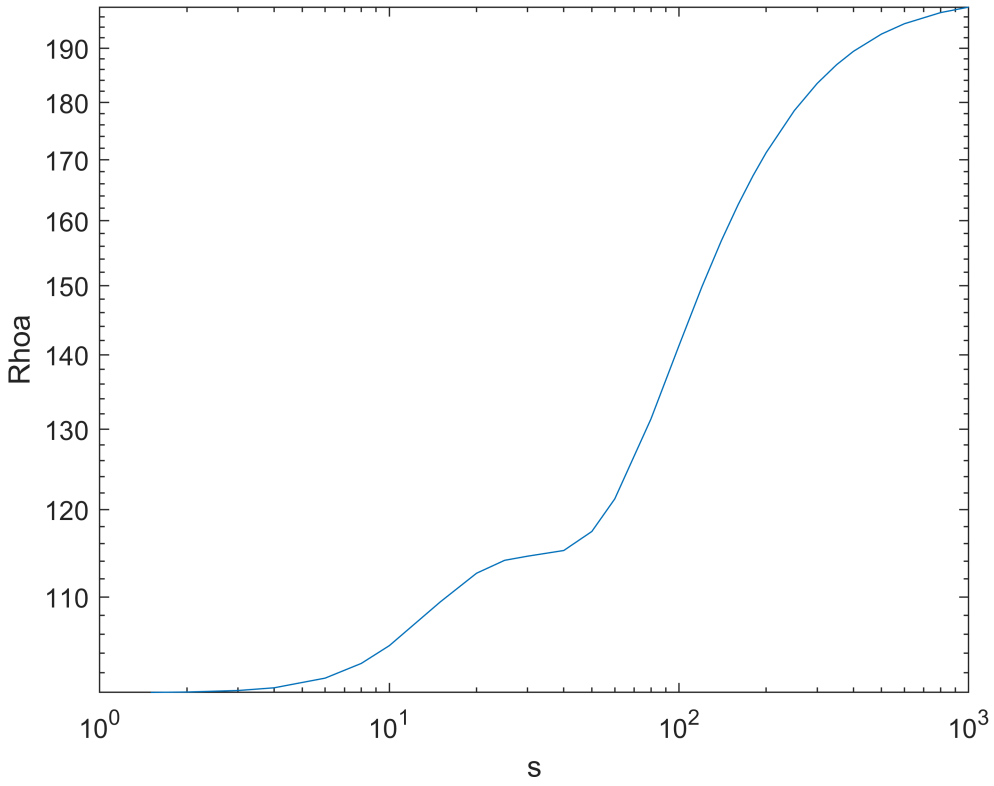
```
%18EX20030 UTKARSH JAISWAL
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832];
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835];
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500];
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
loglog(s,rhoa)
```


180
160
140
120
100
80
60
40
10^0
10^1
10^2
10^3

```
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832 -2.996
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835 0.89
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500 600 800
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
 r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
 h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
 lam=10^(abs(j)-log10(s(i)));
 T=r(n);
 for nu=n-1:-1:1;
 T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
 end
 rt(j)=T;
end
 rho=0;
for k=1:m;
 rho=rho+fc(k)*rt(k);
end
 rhoa(i)=rho;
end
loglog(s,rhoa)
xlabel('s')
ylabel('Rhoa')
```

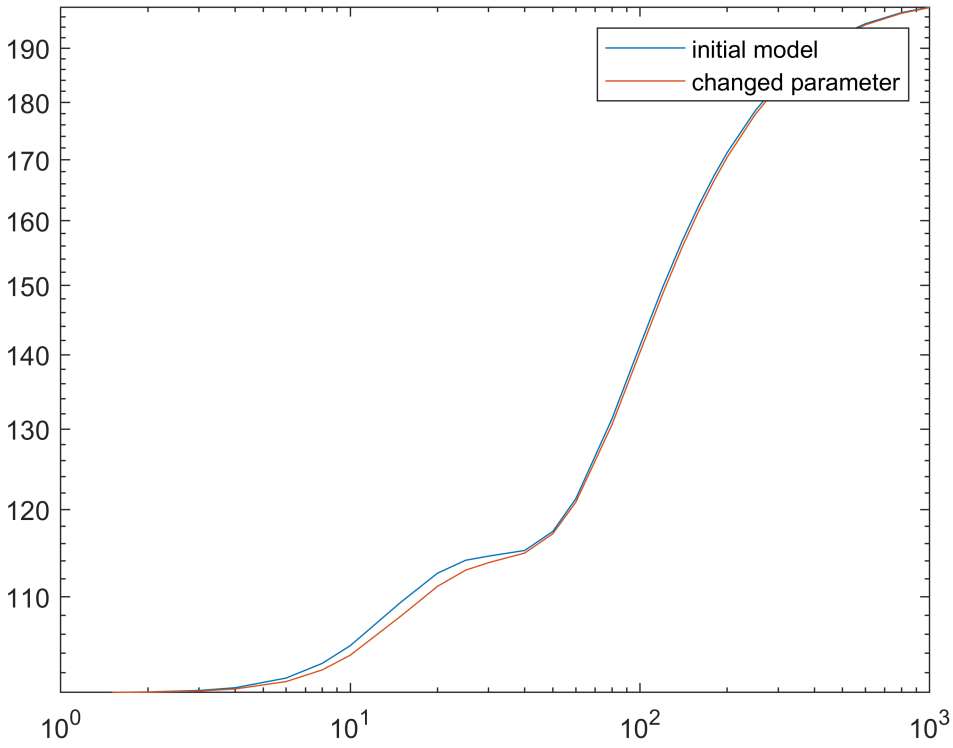

Rhoa
22
20
18
16
14
12
10^0
10^1
10^2
10^3
s

```
%18EX20030 UTKARSH JAISWAL
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832 -2.996
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835 0.89
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500 600 800
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
 r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
 h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
 lam=10^(abs(j)-log10(s(i)));
 T=r(n);
 for nu=n-1:-1:1;
 T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
 end
 rt(j)=T;
end
 rho=0;
for k=1:m;
 rho=rho+fc(k)*rt(k);
end
 rhoa(i)=rho;
end
loglog(s,rhoa)
xlabel('s')
ylabel('Rhoa')
```


Rhoa
190
180
170
160
150
140
130
120
110
10^0
10^1
10^2
10^3
s

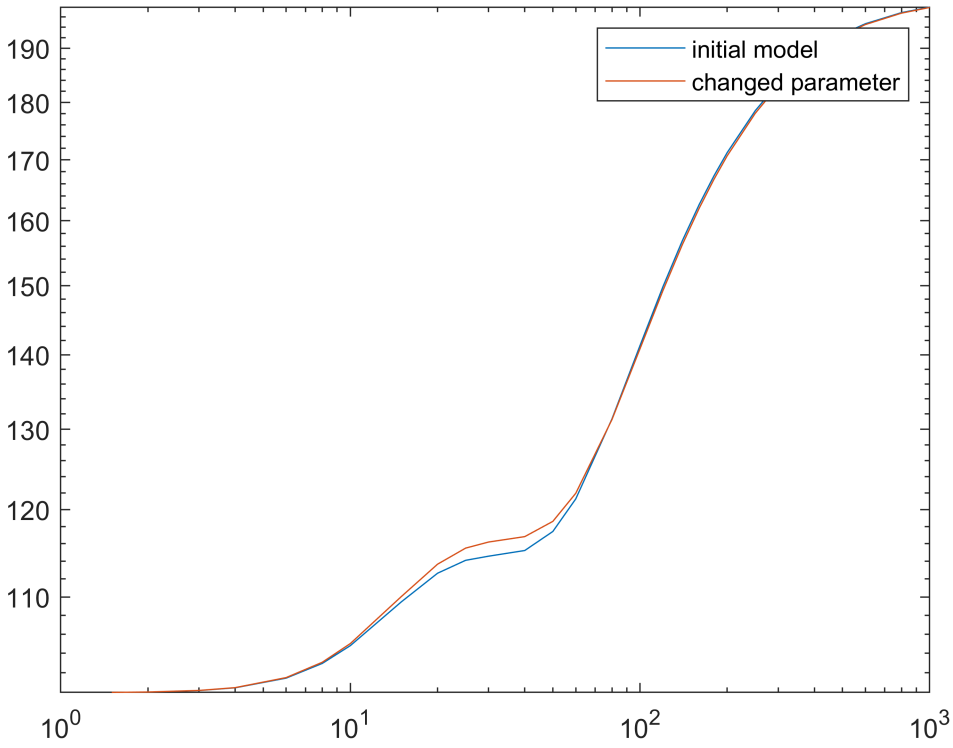
```
%18EX20030 UTKARSH JAISWAL
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832 -2.996
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835 0.89
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500 600 800
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
loglog(s,rhoa)
hold on
h(1)=h(1)*1.1;
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
```

```
loglog(s,rhoa)
legend ("initial model", "changed parameter")
```



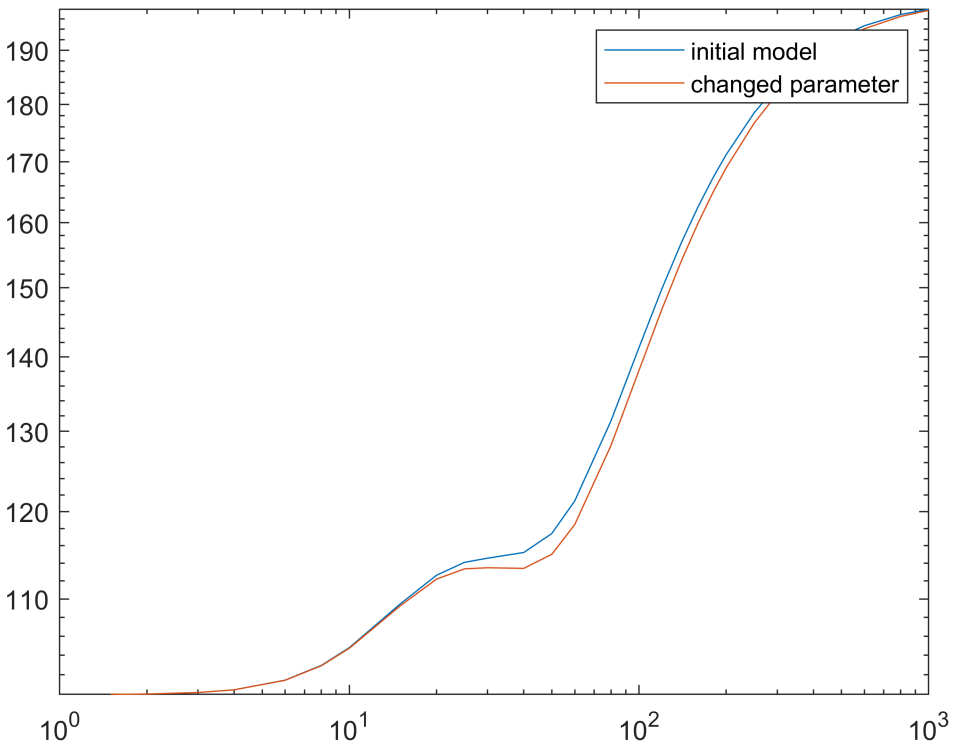
```
%18EX20030 UTKARSH JAISWAL
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832 -2.996
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835 0.89
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500 600 800
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
loglog(s,rhoa)
hold on
h(2)=h(2)*1.1;
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
```

```
loglog(s,rhoa)
legend ("initial model", "changed parameter")
```



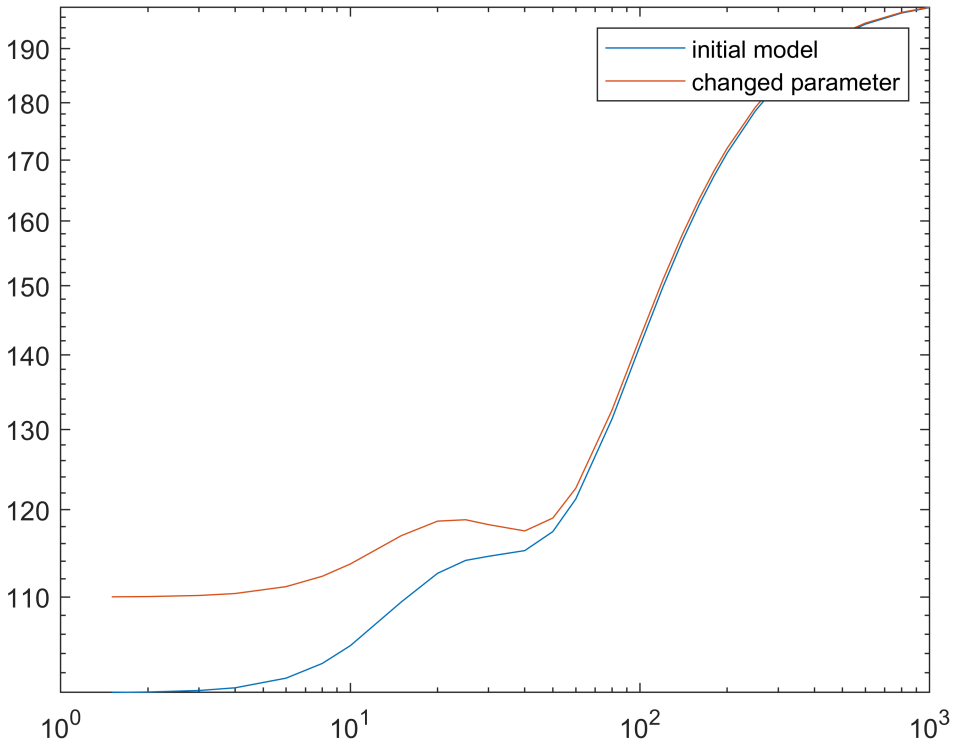
```
%18EX20030 UTKARSH JAISWAL
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832 -2.996
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835 0.89
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500 600 800
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
loglog(s,rhoa)
hold on
h(3)=h(3)*1.1;
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
```

```
loglog(s,rhoa)
legend ("initial model", "changed parameter")
```



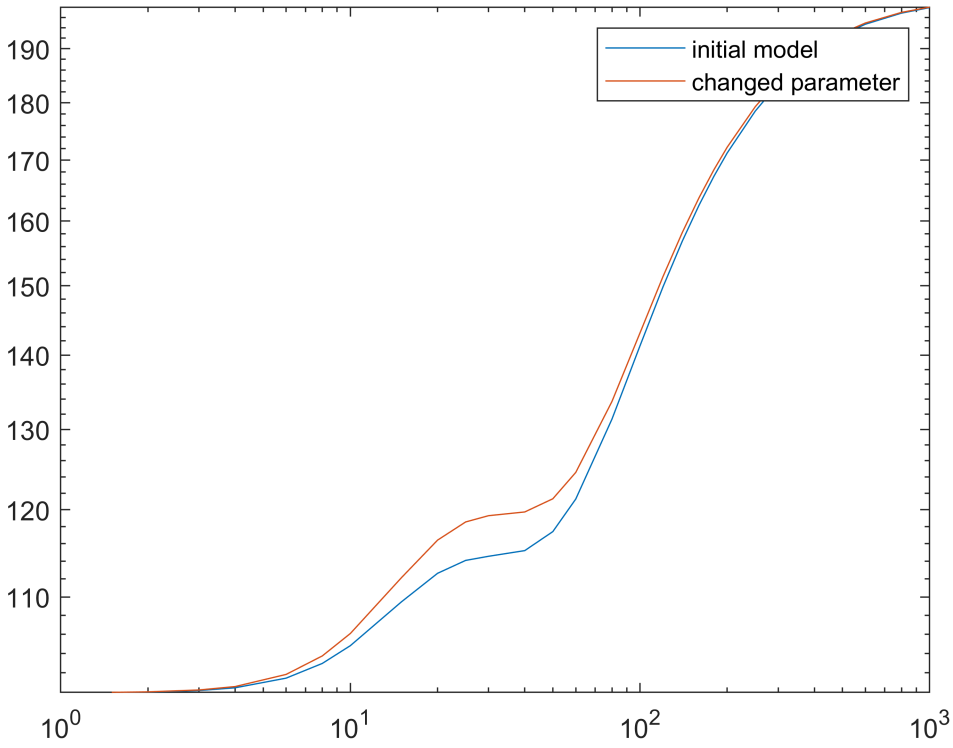
```
%18EX20030 UTKARSH JAISWAL
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832 -2.996
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835 0.89
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500 600 800
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
loglog(s,rhoa)
hold on
r(1)=r(1)*1.1;
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
```

```
loglog(s,rhoa)
legend ("initial model", "changed parameter")
```



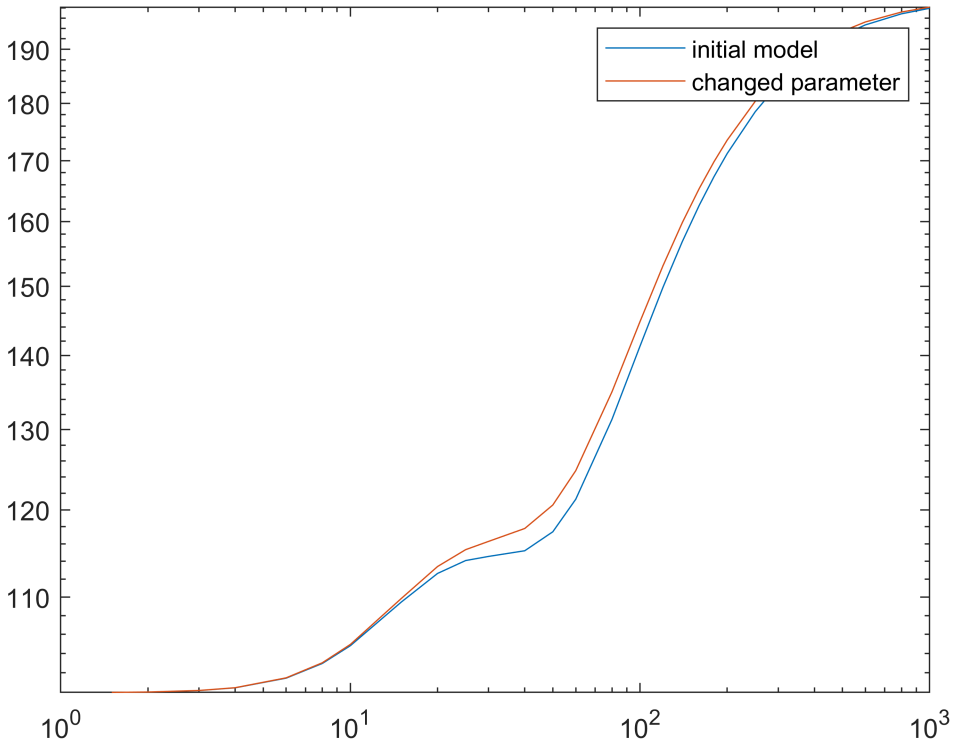
```
%18EX20030 UTKARSH JAISWAL
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832 -2.996
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835 0.89
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500 600 800
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
loglog(s,rhoa)
hold on
r(2)=r(2)*1.1;
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
```

```
loglog(s,rhoa)
legend ("initial model", "changed parameter")
```



```
%18EX20030 UTKARSH JAISWAL
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832 -2.996
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835 0.89
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500 600 800
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
loglog(s,rhoa)
hold on
r(3)=r(3)*1.1;
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
```

```
loglog(s,rhoa)
legend ("initial model", "changed parameter")
```



```
%18EX20030 UTKARSH JAISWAL
clear all
close all
clc
fc=[0.00097112 -0.00102152 0.00906965 0.01404316 0.09012 0.30171582 0.99627084 1.3690832 -2.996
abs=[-0.980685 -0.771995 -0.563305 -0.354615 -0.145925 0.062765 0.271455 0.480145 0.688835 0.89
s=[1.5 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 120 140 160 180 200 250 300 350 400 500 600 800
n = input('Enter the number of layer');
ns=length(s);
r=[ ];
h=[ ];
for i=1:n;
r(i)=input('Enter resistivity from top to bottom');
end
for i=1:n-1;
h(i)=input('Enter thickness from top to bottom');
end
rt=[];
rhoa=[];
m=length(fc);
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
loglog(s,rhoa)
hold on
r(4)=r(4)*1.1;
for i=1:ns;
for j=1:m;
lam=10^(abs(j)-log10(s(i)));
T=r(n);
for nu=n-1:-1:1;
T=(T+r(nu)*tanh(lam*h(nu)))/(1+(T*tanh(lam*h(nu)))/r(nu));
end
rt(j)=T;
end
rho=0;
for k=1:m;
rho=rho+fc(k)*rt(k);
end
rhoa(i)=rho;
end
```

```
loglog(s,rhoa)
legend ("initial model", "changed parameter")
```