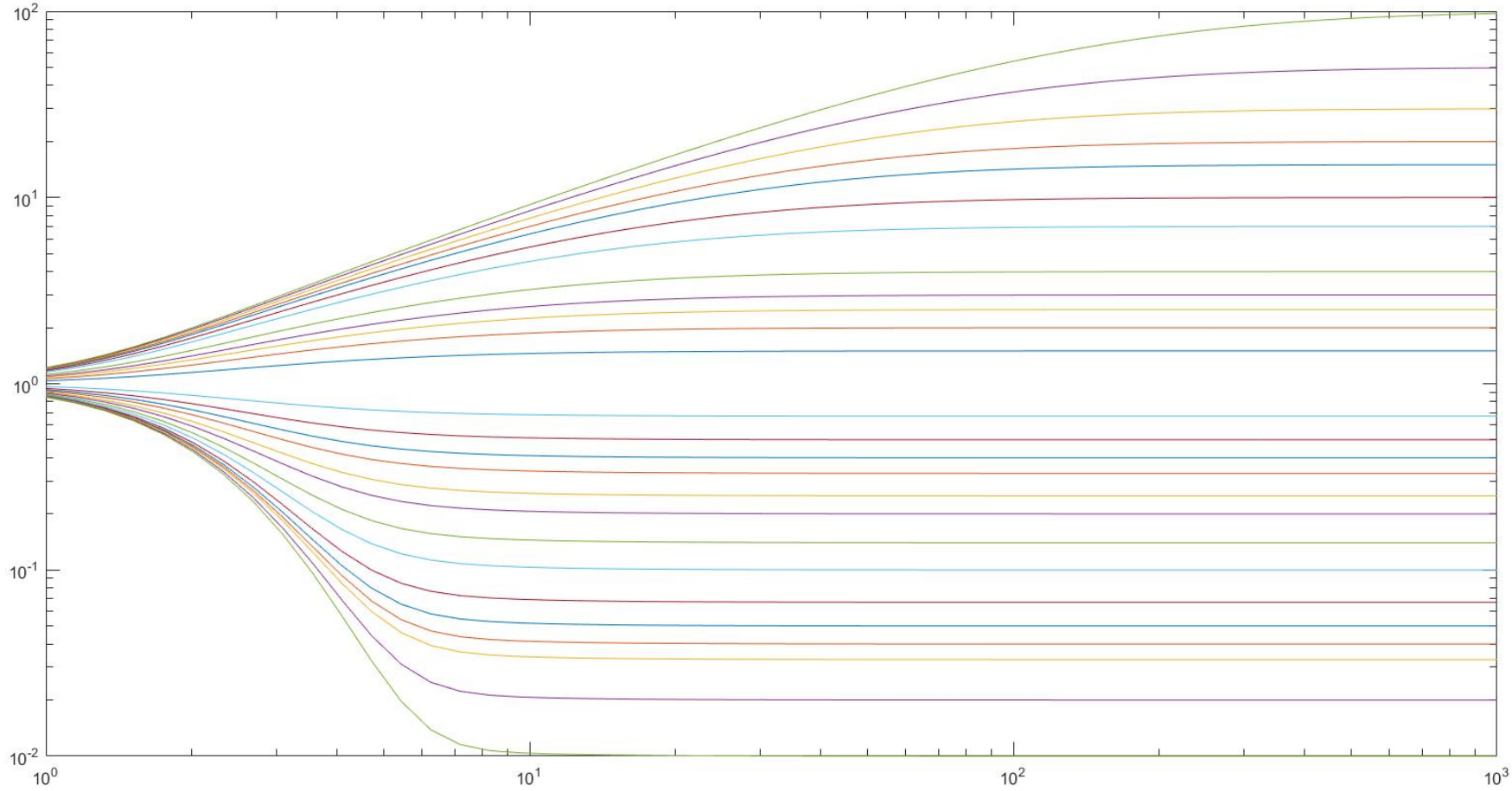
NAME: Utkarsh Jaiswal

ROLL No: 18EX20030

Lab Assignment 2

```
%Utkarsh Jaiswal 18EX20030
clear all
close all
clc
h= 1.0
p1 = 1.0;
p = [1.5 2.0 2.5 3.0 4.0 7.0 10.0 15.0 20.0 30.0 50.0 100.0 0.67 0.5 0.4 0.33 0.25 0.2 0.14 0.1 0.067 0.05 0.04 0.033 0.02 0.01];
X=logspace(0,3);
for j = 1:length(p)
 p2 = p(j);
K = (p2 - p1)/(p2 + p1);
for i = 1:length(X);
d = X(i)/h;
s =0;
for n = 1:2000
 num = (d^3)*(K^n);
 den = (d^2 + 4*(n)^2)^(1.5);
s = s + (num/den);
end
pas(i) = p1*(1 + 2*s);
end
figure(1);
loglog(X,pas);
hold on;
```


10^2
10^1
10^0
10^{-1}
10^{-2}
10^0
10^1
10^2
10^3