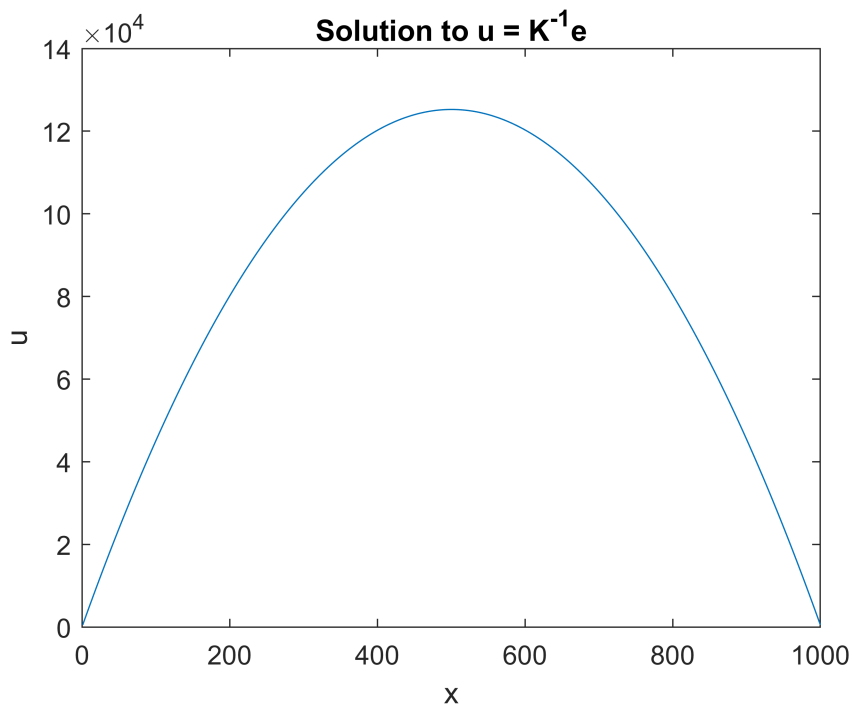


1.1 Problem 22:

Using the commands given in the problem and labeling the axes gives

```
% 1.1 Problem 22
n = 1000;
e = ones(n,1);
K = spdiags([-e,2*e,-e],[-1:1,n,n]);
u = K\e;
plot(u)
xlabel("x")
ylabel("u")
title("Solution to  $u = K^{-1}e$ ")
```



As we can see, the graph shows up with the solution and alterations made.