3c. Optimizing Volume of a Box Using Matlab

Code:

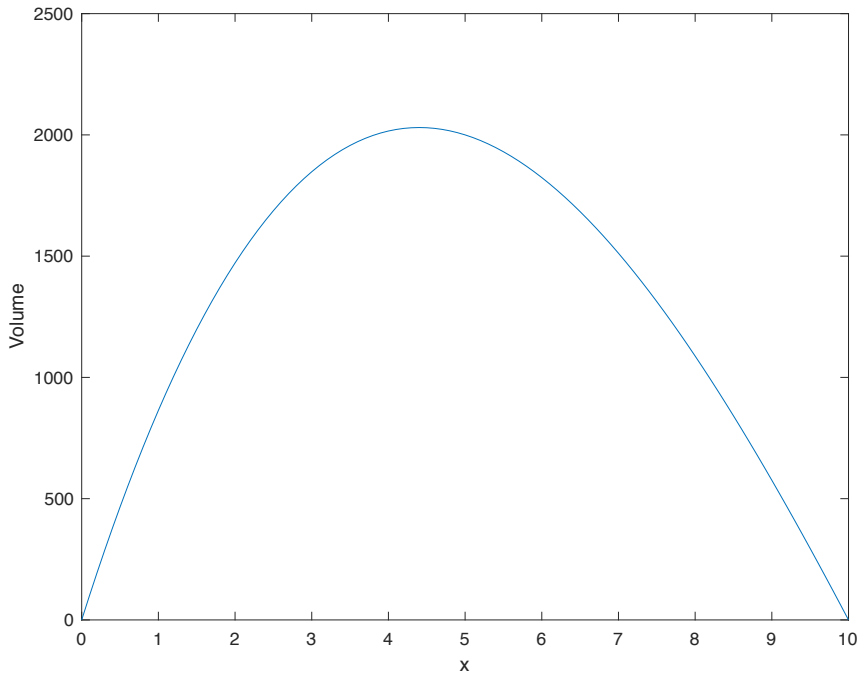
```
L= (50-2.*x)
W= (20-2.*x)
H= (x)

V= L.*W.*H

x = 0:0.1:10;
plot(x,V)
xlabel('x');
ylabel('Volume');

[maxV, maxx] = max(V)
x(maxx);

L = (50-2.*(x(maxx)))
W = (20-2.*(x(maxx)))
H = (x(maxx))
```



```
maxV = 2030 cm^3

L =  41.2000

W = 11.2000

H = 4.4000
```