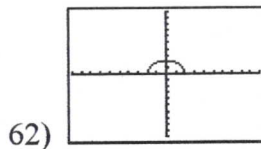
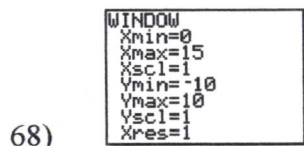


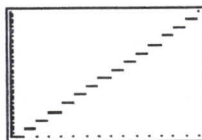
Domain: \mathbb{R}
Range: $[0, \infty)$



Domain $[-2, 2]$
Range $[0, 2]$



Zoom
Fit



$$C(x) = 2.50 [x] + 9.80$$

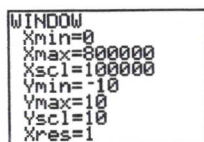
$$y_1 = 2.5 \text{ int}(x) + 9.80$$

69) $P = R - C = xP - C(x)$

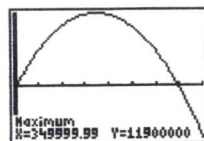
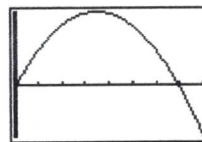
$$P(x) = x(100 - .0001x) - (350000 + 30x)$$

$$P = 100 - .0001x$$

$$C(x) = 350000 + 30x$$

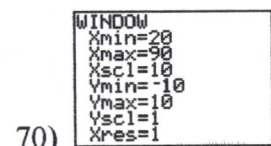


Zoom
Fit

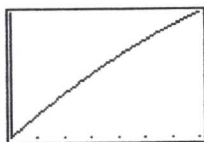


← calc
Maximum

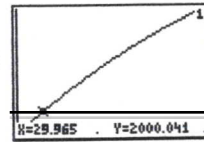
350000 units yield a profit of 11900000



Zoom
Fit

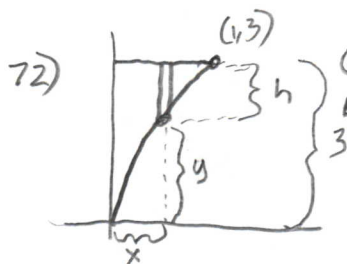


Trace
+
Guess



29.965 watts

Better: Graph $Y_2 = 2000$ and calculate intersect.



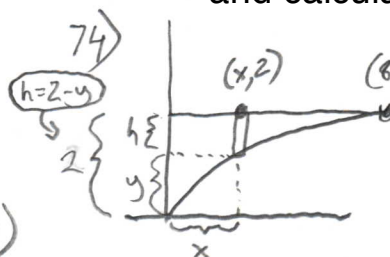
$h = 3 - y$

$$y = 4x - x^2$$

$$h(x) = 3 - y$$

$$h(x) = 3 - (4x - x^2)$$

$$h(x) = 3 - 4x + x^2$$

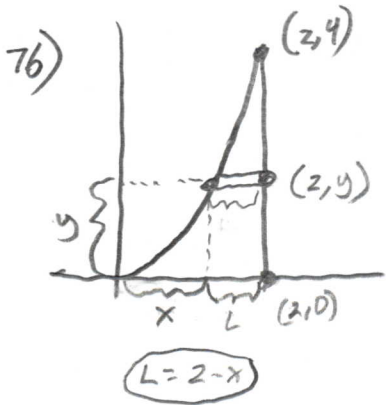


$h = 2 - y$

$$y = 3\sqrt{x}$$

$$h(x) = 2 - y$$

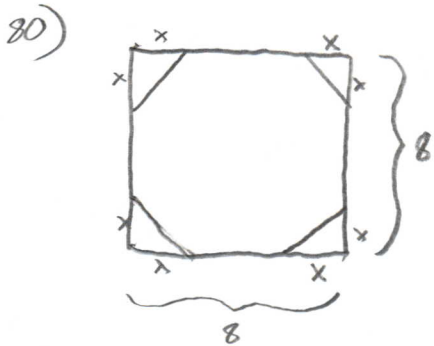
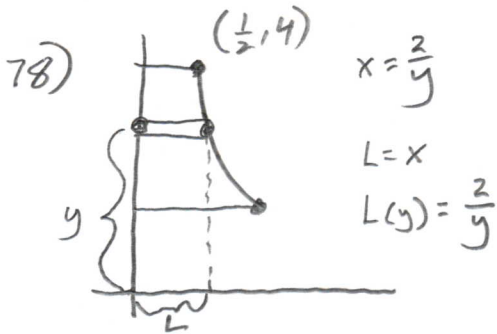
$$h(x) = 2 - 3\sqrt{x}$$



$$x = \sqrt[3]{2y}$$

$$L(y) = 2 - x$$

$$L(y) = 2 - \sqrt[3]{2y}$$



a) Area of square $8^2 = 64$
 Area of triangles $(\frac{1}{2})bh$
 $(\frac{1}{2})x^2$
 4 triangles $4(\frac{1}{2})x^2$

$$A(x) = 64 - 2x^2$$

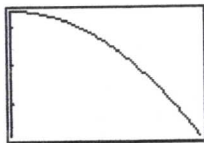
Domain $[0, 4]$

Domain
 biggest is 4!
 4 } 8
 4 }
 smallest is 0

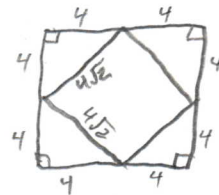
b)

```
WINDOW
Xmin=0
Xmax=4
Xscl=1
Ymin=-10
Ymax=10
Yscl=10
Xres=1
```

Zoom
Fit



c)



$$4\sqrt{2} \times 4\sqrt{2}$$