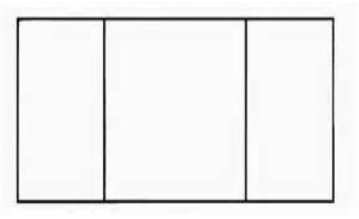


**MPM 1D**

**DETERMINING OPTIMUM AREA**

**EXAMPLE:**

80 metres of fence are used to enclose a rectangular area of land, and divide the rectangle into 3 smaller rectangular areas, as shown.



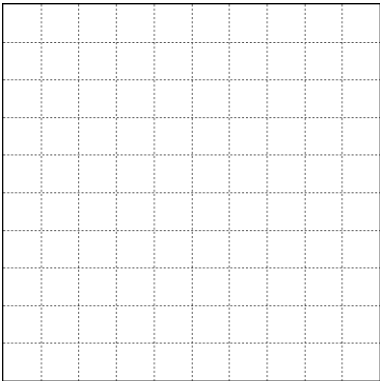
- What dimensions (length and width) should be used to create the largest area?

- *Equation:* \_\_\_\_\_

- *Table of values:*

rectangle	length	width	area
1			
2			
3			
4			
5			

- *Graph:*



- *What dimensions (length and width) should be used to create the maximum area?*

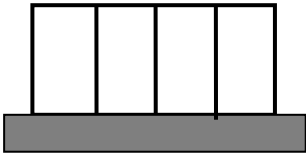
**EXERCISE:**

Using 80 metres of fencing, what dimensions of the rectangle will produce the maximum area for each shape?

1.



2.



Answers: 1) 20m by 40m; 2) 8m by 40m