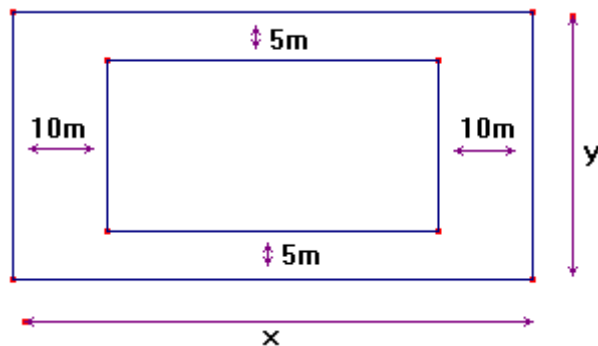


Subject n°8

FUNCTIONS

Please do not write on the exam paper, and do not forget to give back the examination paper at the end of the test.

A fish-farmer wants to use $1,800 \text{ m}^2$ of field to dig a new rectangular tank surrounded by a terrace, as shown below :



1. Express y in terms of x .
2. What are the values taken by x ?
3. Express the area of the tank $A(x)$ in terms of x .
4. The farmer wants to breed as many fish as possible : find the value of x that makes the area of the tank maximum and give the dimensions of the tank.