$f(x) = -27.$

$x^2 - 6x - 27 = -27.$

$x^2 - 6x = 0.$

$x(x-6) = 0.$

$x = 0$ ou $x - 6 = 0.$

$x = 0$ ou $x = 6.$

$(x+9)(x-3) = 0.$

$x+9 = 0$ ou $x-3 = 0.$

$x = -9$ ou $x = 3.$

$f(x) = x^2 - 6x - 27.$

$x = \frac{6}{2} = 3.$

$f(3) = 3^2 - 6\times 3 - 27.$

$f(3) = 9 - 18 - 27.$

$f(3) = -9 - 27 = -36.$

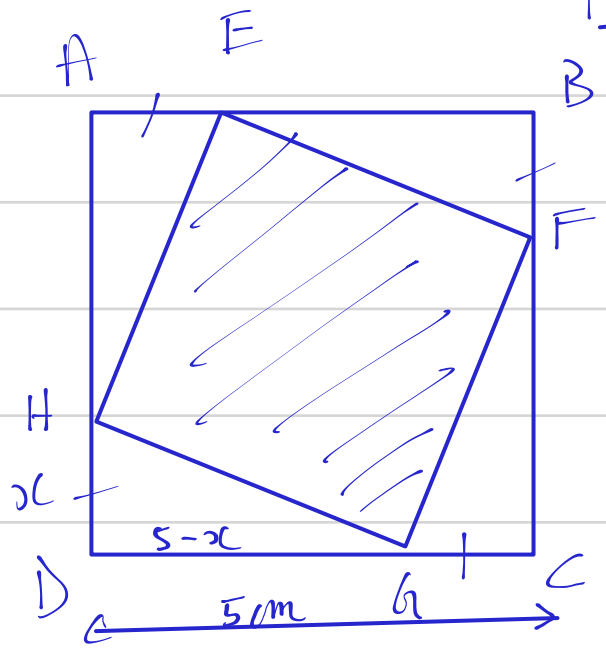
$f(x) = (x-3)^2 - 36.$

$C = f(x) = -36.$

$(x-3)^2 - 36 = -36$

$(x-3)^2 = 0.$

$\boxed{x = 3.}$



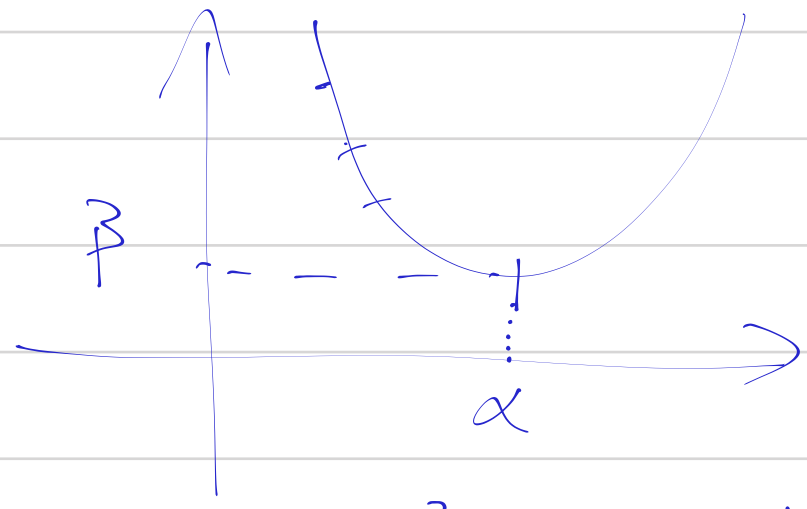
$HG^2 = x^2 + (5-x)^2.$

$HG = \sqrt{x^2 + 25 - 10x + x^2}.$

$HG = \sqrt{2x^2 - 10x + 25}.$

1) $HG^2 = \left(\sqrt{2x^2-10x+25}\right)^2 = \underset{a}{2}x^2 \underset{b}{-10}x \underset{c}{+25}$.

2) α et β



3) $f(x) = 14,12$

4) $f(x) \leq 13$.

$2x^2 - 10x + 25 = 14,12$.

$2x^2 - 10x + 10,88 = 0$.

$\Delta = (-10)^2 - 4 \times 2 \times 10,88$

$\Delta = 12,96 > 0$.

Soit f une fonction définie sur I. Soit $a \in I$.

f est dérivable en a SSi :

$$\lim_{h \to 0} \frac{f(a+h)-f(a)}{h} = l \in \mathbb{R}.$$

$f(x) \sqrt{x}$

$f'(x) = \frac{1}{2\sqrt{x}}$.

$x \neq 0$. $\}$ $x > 0$.

$x \geq 0$ $\}$ $]0;+\infty[$.

```
from math import *
n = (...)
For i in range(n)
u = 2*n**2 - 3*n+1.
print u.
```