EXO 1

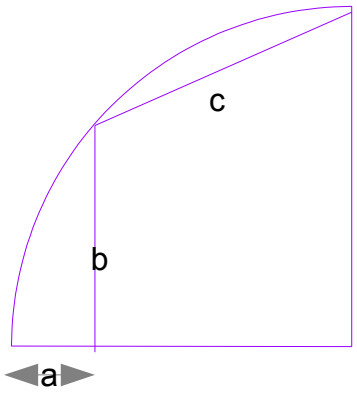
In this quarter of circle,
We know the integer segments a and b

1 Find c

2 Compute all integer solutions for c with :

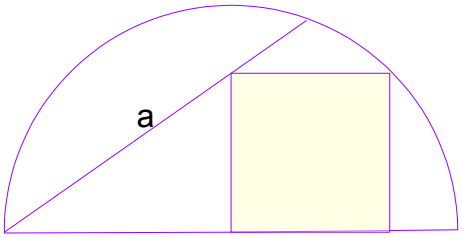
$$0 < a < b < 30$$

3 build at least one of the solutions



EXO 2
A square is drawn inside the half-circle
In order to intersect the center of the half-circle,
and to be tangent both to the half circle
As well as the integer segment of
lenght a known.

1 Find the area of the square



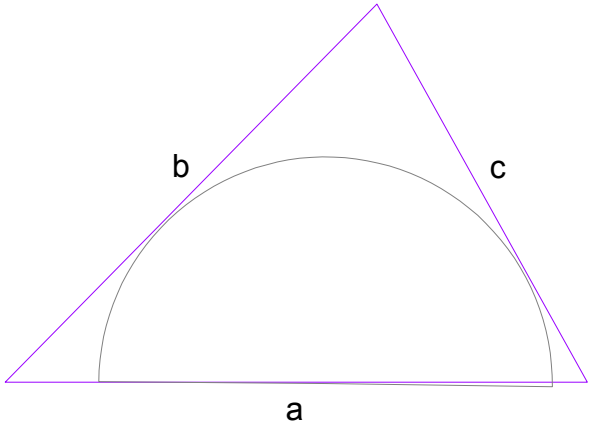
EXO 3
Triangle (a,b,c) is Heronian with $c \leqslant b \leqslant a$

1- Find the radius d of the half-circle
Which diameter is on side a
And which is tangent to b and c.

2- Compute all integer solutions for c with :

$$1 \leqslant d \leqslant 90$$

3 build at least one of the solutions



EXO 4

On this figure, we get the intersection of twice the same
Rectangle triangle with 2 sides are
Integer and known a and b.

1- Find the area of the 3 parts

2- Compute all integer solutions for

$$0 < b < a < 30$$

3 build at least one of the solutions