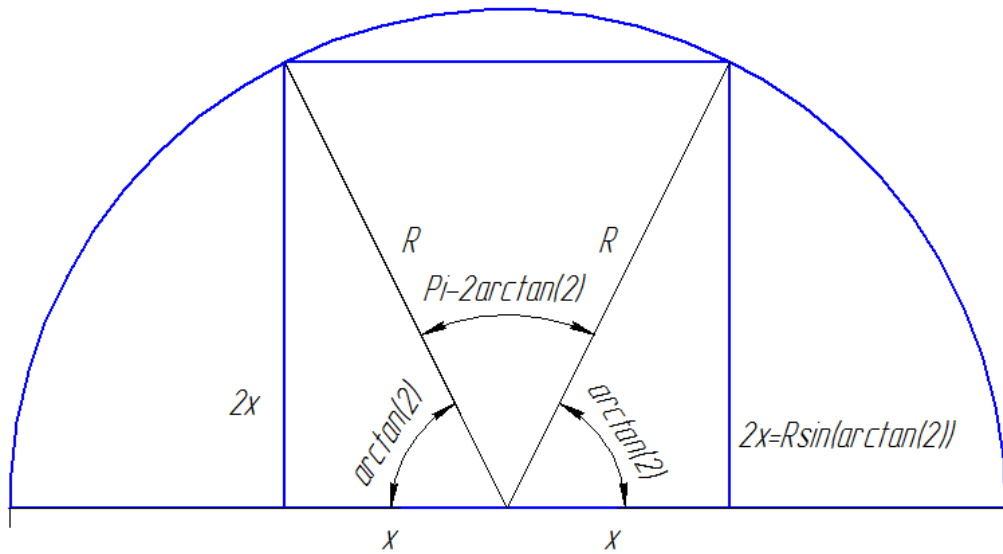**Task:**

Two squares are inscribed in a semi-circle. If the area of the
smaller square is 25sq.units. What is the area of the larger square

Solution:

A square is considered to be inscribed in a semi-circle when it is in contact with the semi-circle
with all its angular points.

Draw the first square using trigonometry laws (see fig. above)

Draw the second square. It appears to be that only one square can be inscribed in the semi-
circle, which would stand on the diameter. Any other inscribed square can't exist, because 90°
angle can stand only on semi-circle. Only half of such square can fit the semi-circle.

So two squares are the same.

Answer:

$S = S = 25 \, sq.\, units$