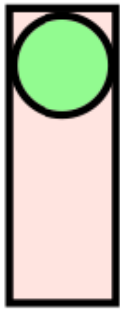


October 7th

Three sides of a rectangle are tangents to a circle.

What is the ratio of the longest side to the shortest side of the rectangle if the area of the rectangle is four times the area of the circle?



Radius of circle = r

Hence area of circle = πr^2

Hence area of rectangle = $4 \pi r^2$

Width of rectangle = $2r$

\therefore length of rectangle = $4 \pi r^2 \div 2r = 2\pi r$

\therefore ratio of length :width = $2\pi r:2r = \pi:1$