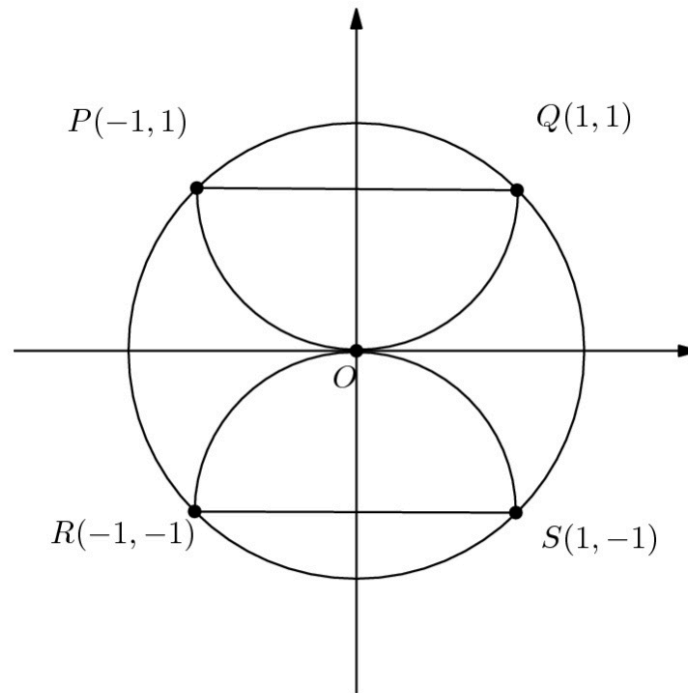
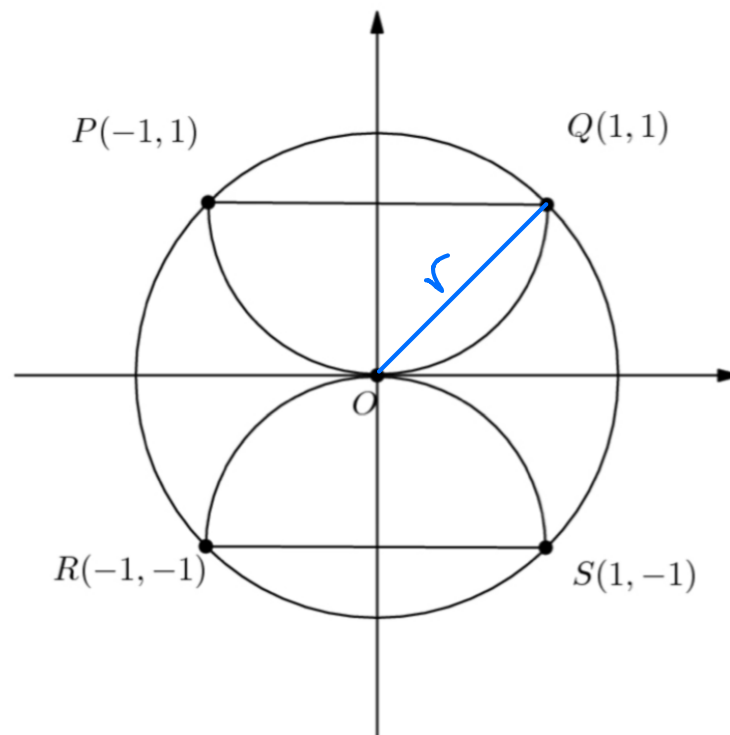


Semicircles POQ and ROS pass through the center O . What is the ratio of the combined areas of the two semicircles to the area of circle O ?



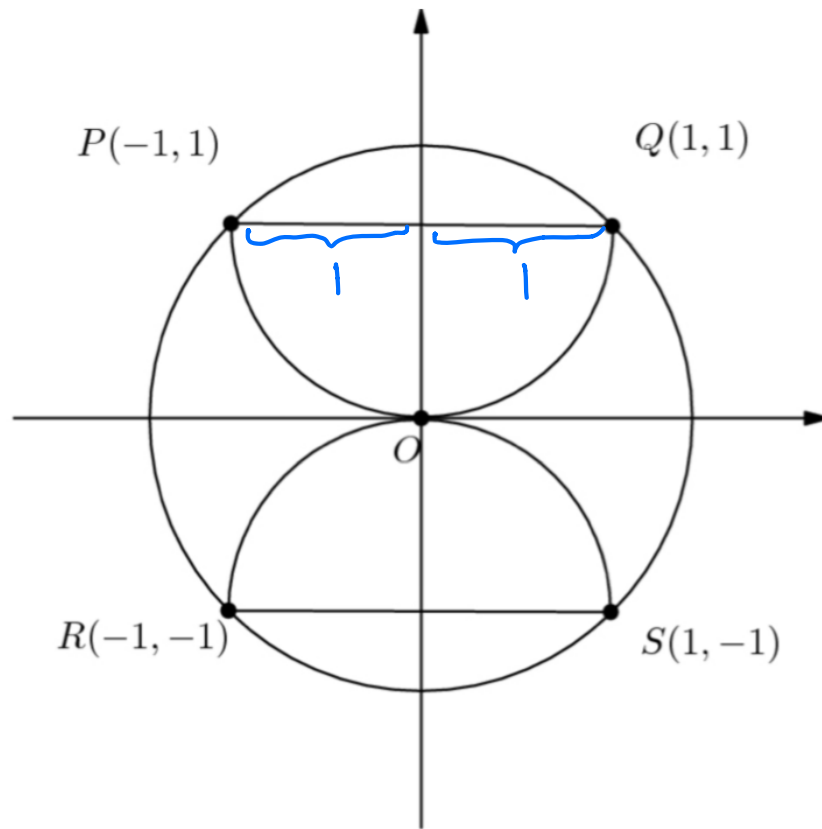
First we work out the area of the circle O :



We have $r^2 = 1^2 + 1^2 = 2$

So the area of the circle is $\pi r^2 = 2\pi$

Now we work out the area of the semicircles:



So the semicircle has diameter $1+1=2$
 \Rightarrow radius $=1 \Rightarrow$ area $= \pi$

Hence the ratio is $1:2$