



Problem of the Week

Problem C

A Wet Sidewalk

A sprinkler sprays water in a circular region with a radius of 5 m. It is positioned in such a way that some of the water is landing on a nearby sidewalk.

In the diagram, the circle with centre O represents the circular region covered by the water sprinkler. Points A and B lie on the circle with $\angle AOB = 90^\circ$ and $OA = 5$ m. The shaded region, which is the region inside sector AOB but outside of $\triangle AOB$, represents the region of the sidewalk where water is landing.

Determine the area of the region of the sidewalk where the water is landing, correct to one decimal place.

