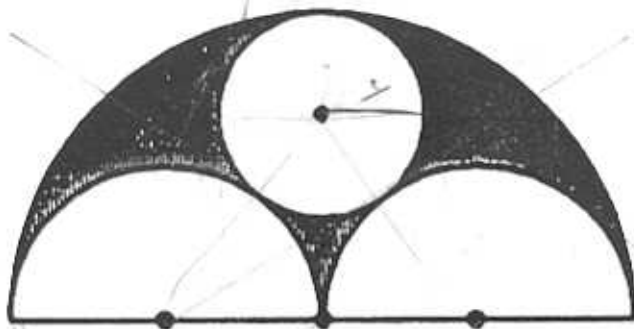


Two congruent semicircles lie on the diameter of a third semicircle, each tangent to the other two. A small circle is tangent to all three semicircles. If the area of the shaded region is 45π , what is the length of a radius of the small circle?

NAME Harvard Berman

ANSWER _____



$5r^2$

$45\pi = \pi r^2$
 $2r = x$
 $r = y$

$45 = \pi r^2$