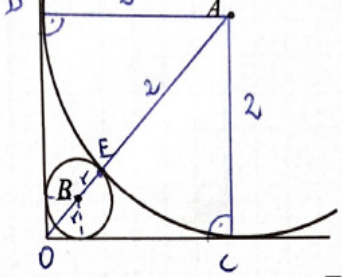
Test_2021-09-19

Name:

Surname:

Group:



Uzasadnij, że promień okręgu o środku B jest mniejszy od $\sqrt{2}-1$.

$|AO| = 2\sqrt{2}$

$|BO| = r\sqrt{2}$

$2\sqrt{2} = r\sqrt{2} + r + 2$

$2\sqrt{2} - 2 = r(\sqrt{2}+1)$

$r = \frac{2\sqrt{2}-2}{\sqrt{2}+1} \cdot \frac{(\sqrt{2}-1)}{(\sqrt{2}-1)} = \frac{4-2\sqrt{2}-2\sqrt{2}+2}{2-1} =$

$= 6 - 4\sqrt{2}$

$r \overset{?}{<} \sqrt{2}-1$

$6-4\sqrt{2} < \sqrt{2}-1$

$7-5\sqrt{2} < 0$

$\sqrt{49} - \sqrt{50} < 0$

and.