

Re: Simple Geometry Problem

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"Randy Poe" <poespam-trap@xxxxxxxxxxx> wrote:

david bandel wrote:

Given a circular arc of length 15 units that is subtended by a chord of the same circle of length 10 units, find the radius of the circle.

Draw a radii at either end of the arc. There is an angle theta between them.

Draw the radius that bisects this angle. It is a perpendicular bisector of the chord. You now have a relationship between $\theta/2$ and $L/2$, the length of half the chord.

You also have a relationship between theta and the length of the arc.

Write down those two relationships and the solution should be clear.

David, I suggest that you look at Case 1 at <http://mathforum.org/dr.math/faq/faq.circle.segment.html>.

David Cantrell

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