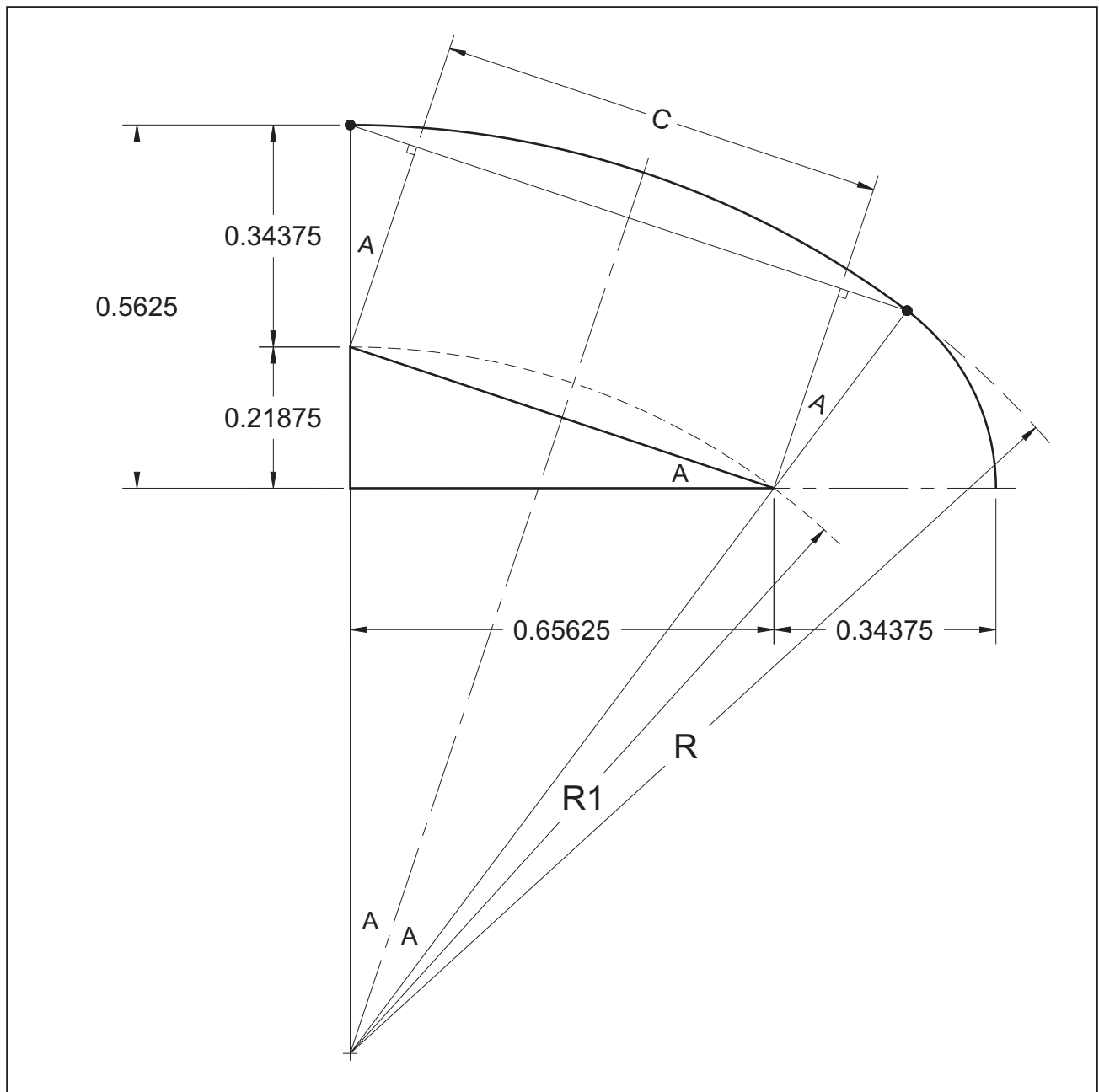


Unknown Radius

The most important approach to solving this mathematical problem is to find a triangle that provides enough data, so it can be solved. In the illustration, the hypotenuse of this triangle is the line that originates at the center of the 0.34375 radius. To find the unknown radius R , follow the *order of calculations* on the next page.



➡ Order of calculations:

$$A = \tan^{-1}(0.21875 / 0.65625) = 18.43494882^{\circ}$$

$$C = 0.21875 / \sin A = 0.691748238$$

$$R1 = C / (2 \times \sin A) = 1.09375$$

$$R = R1 + 11/32 = R1 + 0.34375$$

and the final result is ...

$$R = 1.4375$$

Note:

**Although the unknown radius has the same value as the overall length of the part,
there is no relationship between the two dimensions at all**