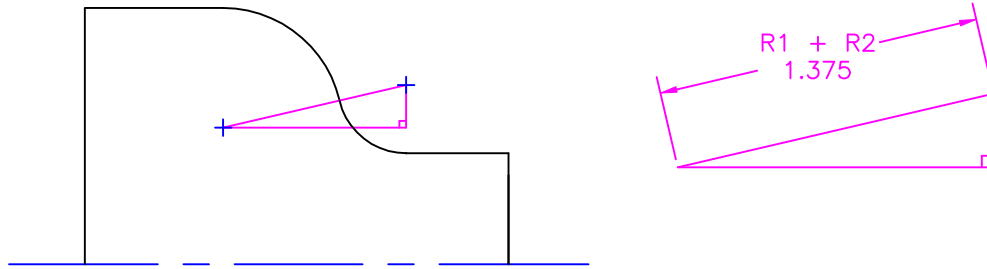


Tangent Radii Intersecting

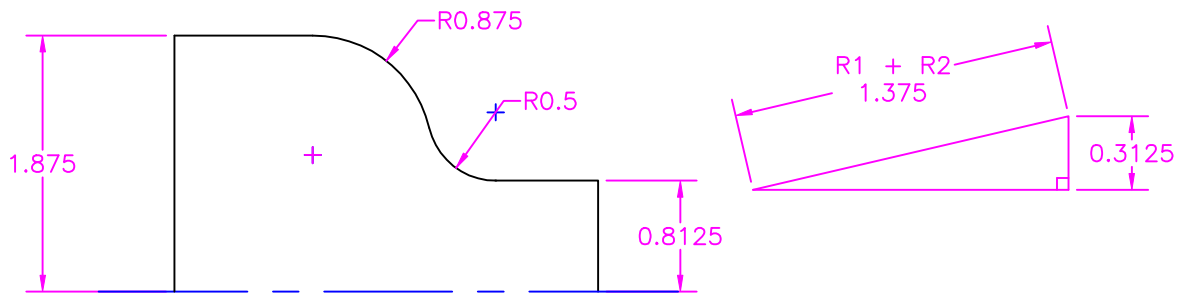
1-23-01 Tangent Radii Intersecting pg2.DWG

Page 2 of 2

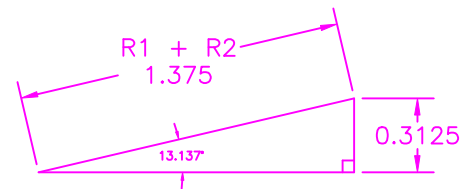
4. Draw a larger triangle off to the side of the drawing oriented the same as the one you drew. The length of the Hypotenuse is the sum of adding both radius lengths together.



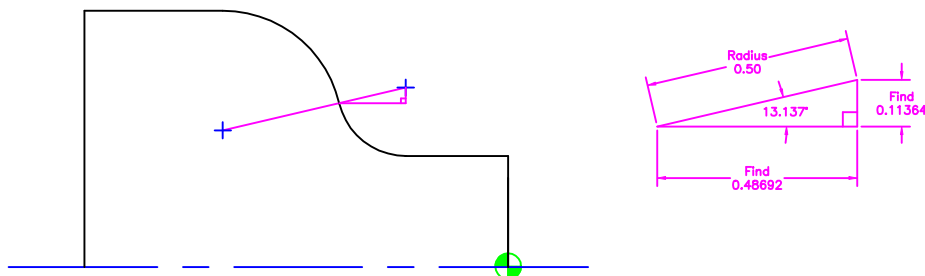
5. Find the length of the base side or the altitude side of your triangle from print dimensions. $(0.8125 + 0.5) - (1.875 - 0.875) = 0.3125$
This will be the altitude side of your 1st triangle.



6. Calculate the ANGLE of your triangle. $(0.3125 / 1.375) \text{ INV SIN} = 13.136558^\circ$
This will be the angle of your triangles.



7. Draw a smaller triangle from the center of one of the radii to the transition point we are finding. You know two values on this triangle: The Hypotenuse length is equal to the Radius length. The ANGLE is the same as the last one you calculated.



8. Calculate the other two legs lengths of the triangle.
 $0.5 \times \text{SIN } 13.13656^\circ = 0.11364$
 $0.5 \times \text{COS } 13.13656^\circ = 0.48692$

9. Do the addition and subtraction from the radius center coordinates (from the blueprint) to find the transition point wanted. X 1.1989 Z -1.2369