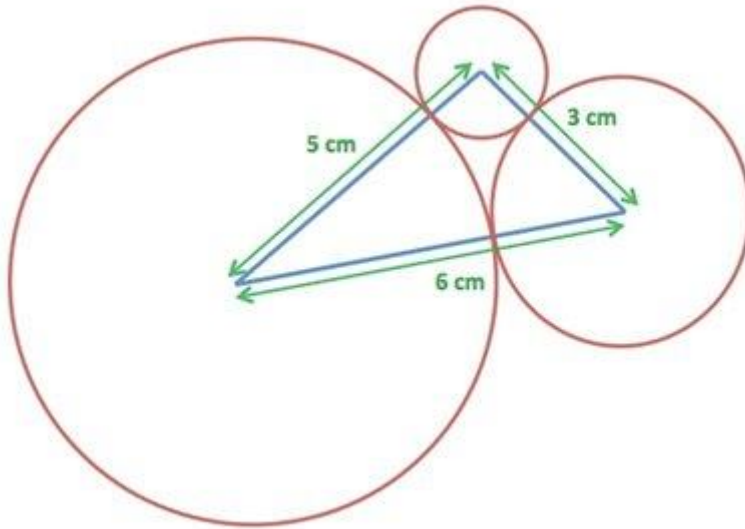


### Challenge 23: Triangles and Circles

A triangle has lengths of 5cm, 6cm and 3cm.

Circles are drawn at each of the vertices of the triangle so that each circle just touches the other two circles. Find the three radii of the three circles.



What if the original triangle had lengths of  $a$ ,  $b$  and  $c$  ?

Don't just solve this problem: look for the most elegant way to go about solving it.