



Calling the radius of the given circle **R** and the three sides of the triangle **2a**, **2b**, and **2c** and applying Ptolomey to the quadrilateral **OMaCMb** where **Ma** and **Mb** are the midpoints of the original sides.

It is obvious

$$c = (a * \text{SQRT}(R^2 - b^2) + b * \text{SQRT}(R^2 - a^2)) / R$$

by substitution $R=5$; $b = 5/2$; $a = 6/2$ we get $2c = 91.92$