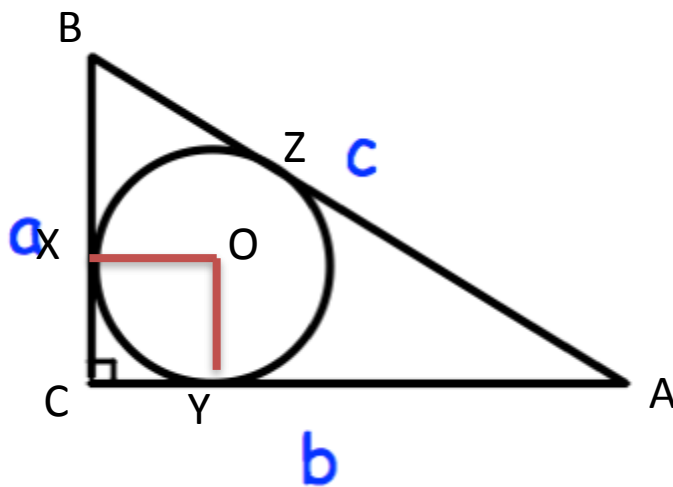


February 26<sup>th</sup>



The radius  $r = OY = CX$

Hence  $BX = a - r$

Using the fact that the tangents from a point to the same circle are the same length:

$$BZ = BX = a - r$$

A similar argument runs for AZ:

The radius  $r = OX = CY$

Hence  $AZ = AY = b - r$

Now, since  $AB = AZ + BZ$

$$c = b - r + a - r$$

Hence  $2r = a + b - c$

Therefore  $r = \frac{a + b - c}{2}$

