Ratio of similitude for:

(1/4) $\triangle AIB$ / $\triangle FBO$ | $\dfrac{AI}{FB} = \dfrac{IB}{BO} = \dfrac{AB}{FO} = k.$

5). $O\hat{F}B + F\hat{O}B = 90^\circ$ (sum of base angles in right $\triangle FOB$)
$I\hat{A}B + I\hat{B}A = 90^\circ$ (" " " " " " " AIB)

but $F\hat{O}B = I\hat{B}A$ (proved)

(1/2) Hence $B\hat{F}O = B\hat{A}I$ (angles having same complement)

Thus, quadrilateral AEBF is inscribed in a circle

(having angles between its diagonals & opposite sides are equal)

(1/4) Center: Is $\underline{\underline{R}}$ the midpt of [AF] (having 2 right $\triangle$'s ABF at B & AEF at E sharing same hypotenus [AF])

(1/4) Radius: $\dfrac{AF}{2}$.

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