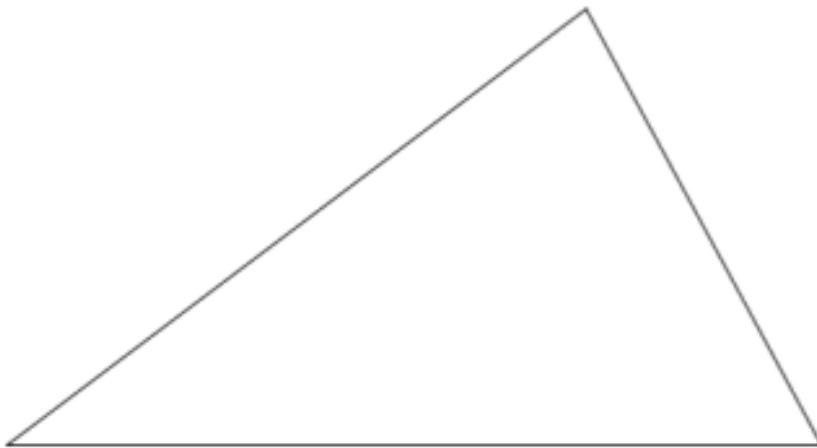


In-circle of a Triangle: (Inscribed circle of a triangle)

Construction with Demo work:

Draw a triangle of given measurement.

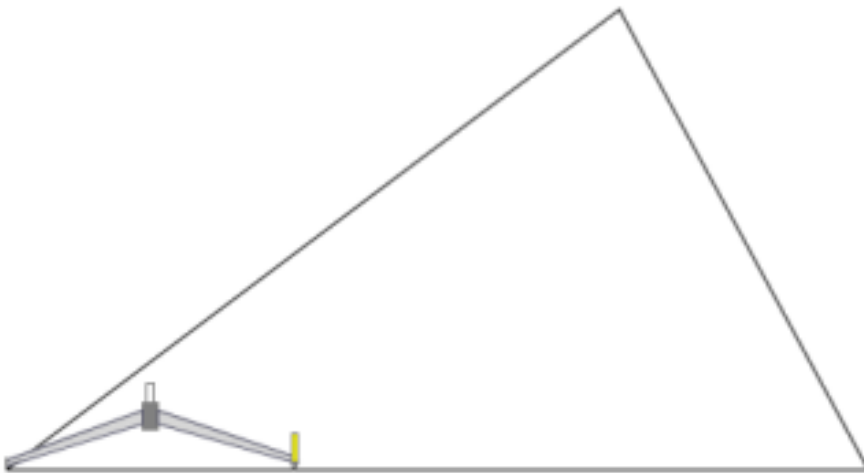


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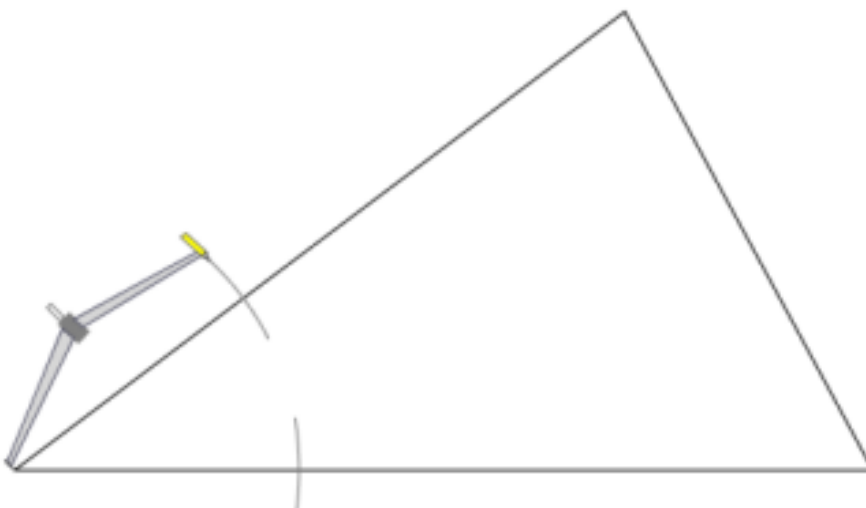
Construction with Demo work:

Place the compass on the vertex of triangle.

Adjust the Compass to a medium width setting. The exact width is not important.

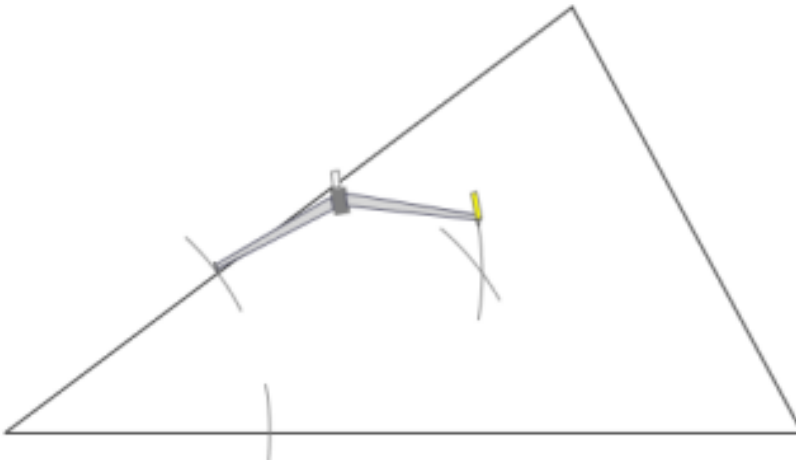


Without changing the compass width, draw an arc across each adjacent side.

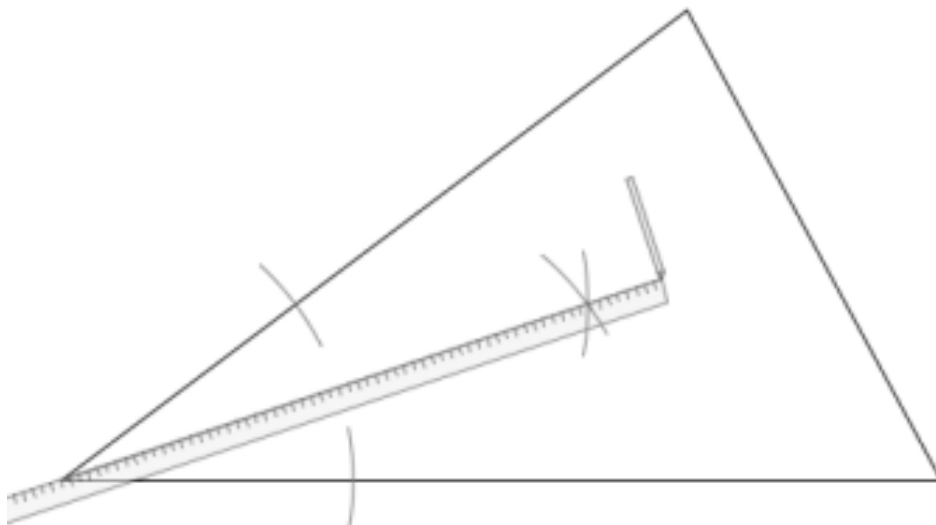


Construction with Demo work:

Change the compass width if desired, then from the point where each arc crosses the side, draw two arcs inside the triangle so that they cross each other, using the same compass width for each.

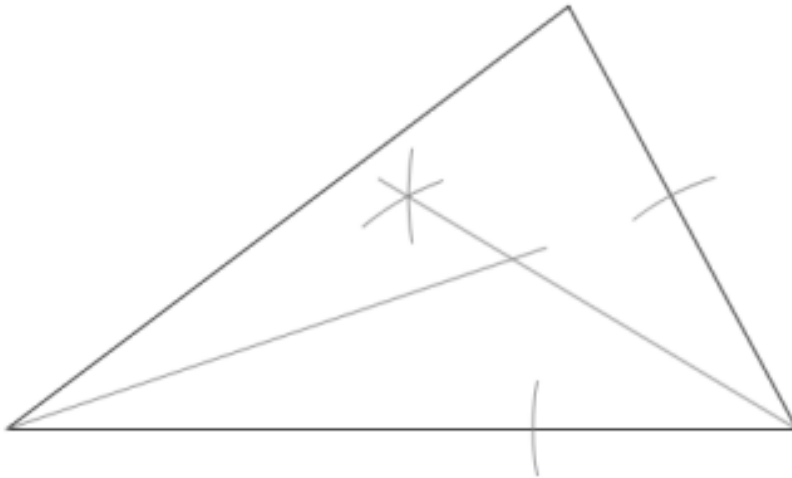


Draw a line from the vertex of the triangle to where the last two arcs cross.

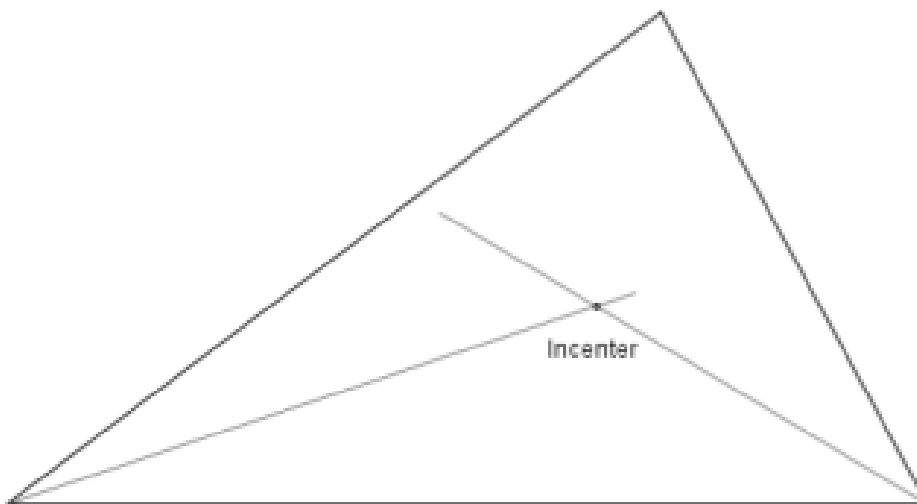


Construction with Demo work:

Repeat all of the above at any other vertex of the triangle.

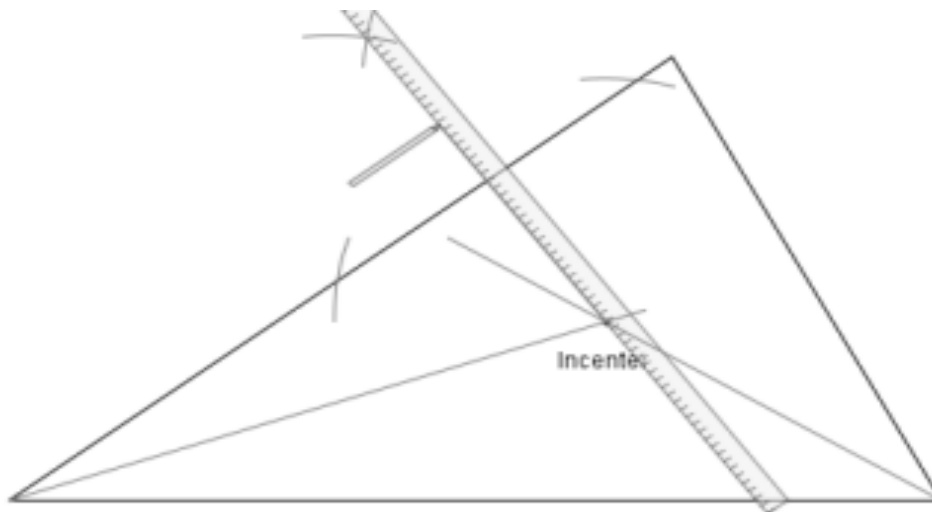


Where the two new lines intersect, mark a point as the in-center of the triangle.

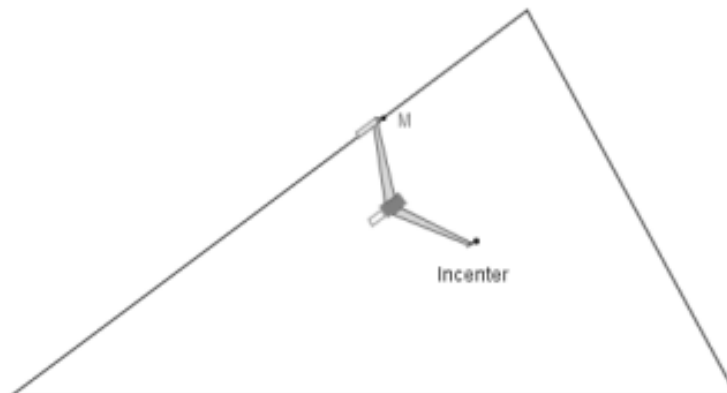


Construction with Demo work:

Draw the perpendicular from the in-center to a side of the triangle.

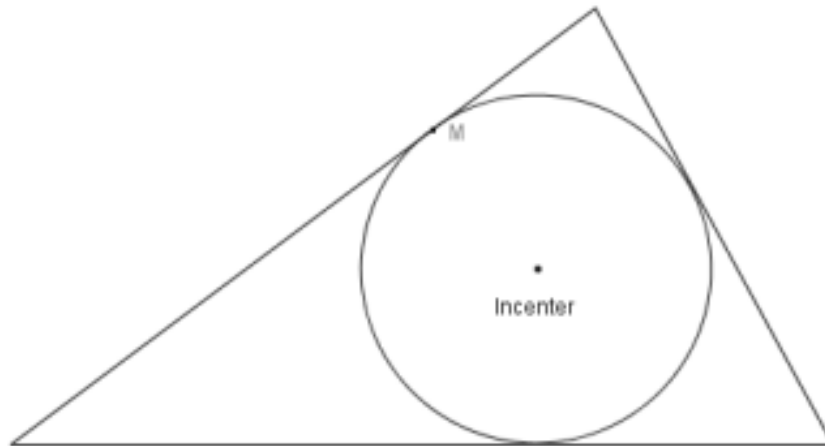


Place the compass on the in-center and set the width to point M. This is the radius of the in-circle, sometimes called the in-radius of the triangle.



Construction with Demo work:

Draw a circle from in-center it will touch all three sides of the triangle and called as in-circle of the triangle. The circle is called inscribed circle of a triangle.



In-circle of a triangle

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