

Lesson 5-3: Concurrent Lines, Medians and Altitudes

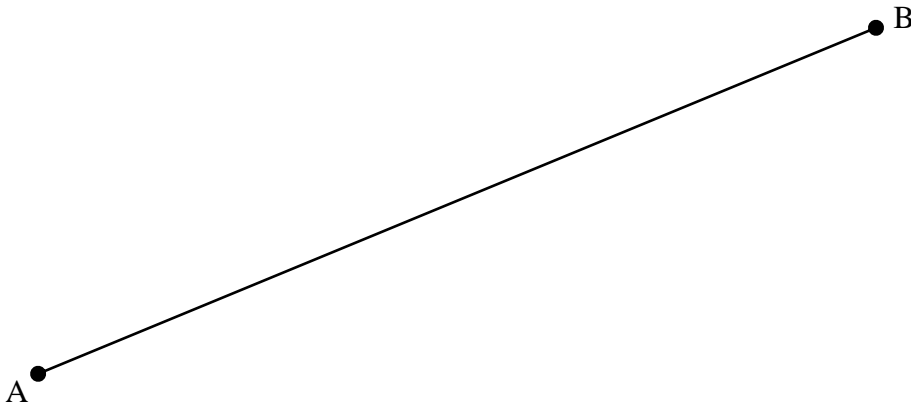
Construct the perpendicular bisector to this segment.

You can only use your protractor to verify the constructed angles, not to draw them.

You can only use a ruler as a straight-edge, not to measure.

Think about the theorems we discovered and used yesterday...can one of them help here?

Which one? How does it apply?



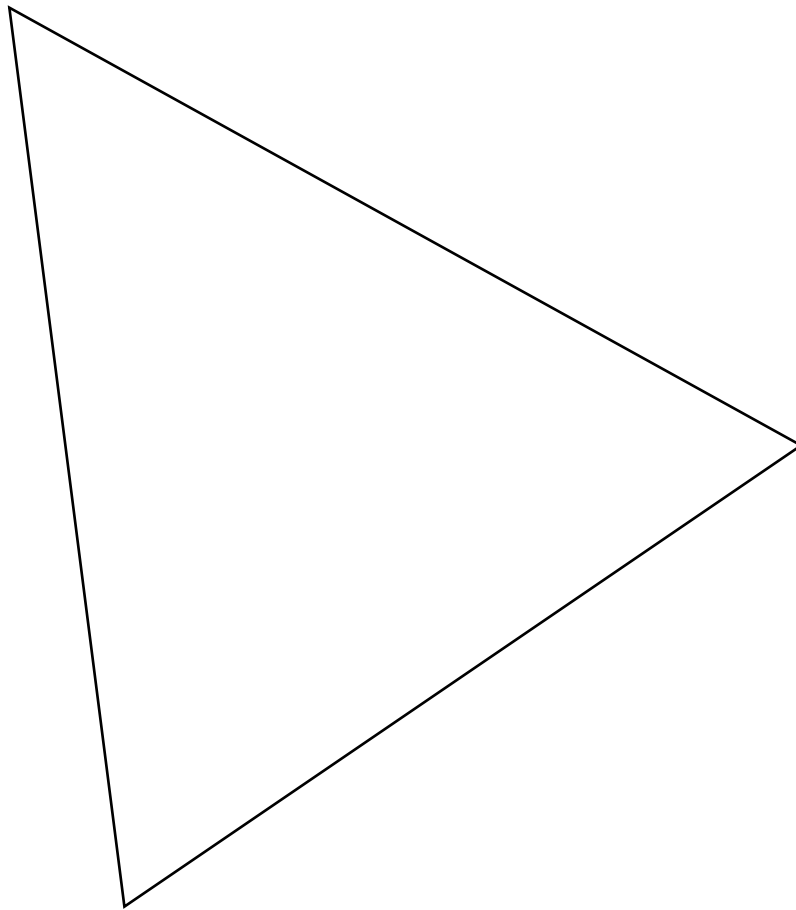
Lesson 5-3: Concurrent Lines, Medians and Altitudes

Find the point of concurrency for all perpendicular bisectors of this triangle.

Is there an interesting circle related to the triangle at this point of concurrency?

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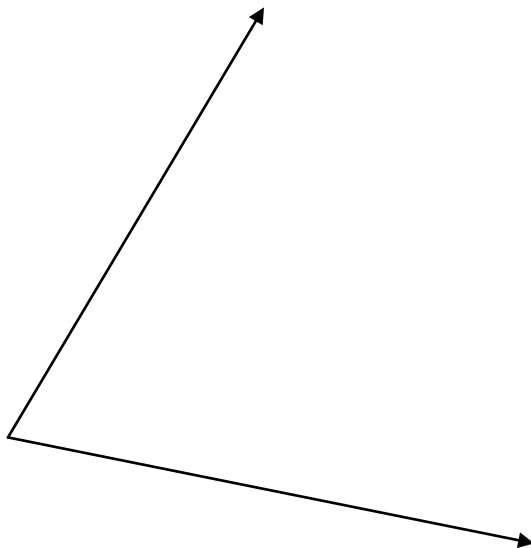
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Construct the angle bisector of this angle.

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Think about the theorems we discovered and used yesterday...can one of them help here?



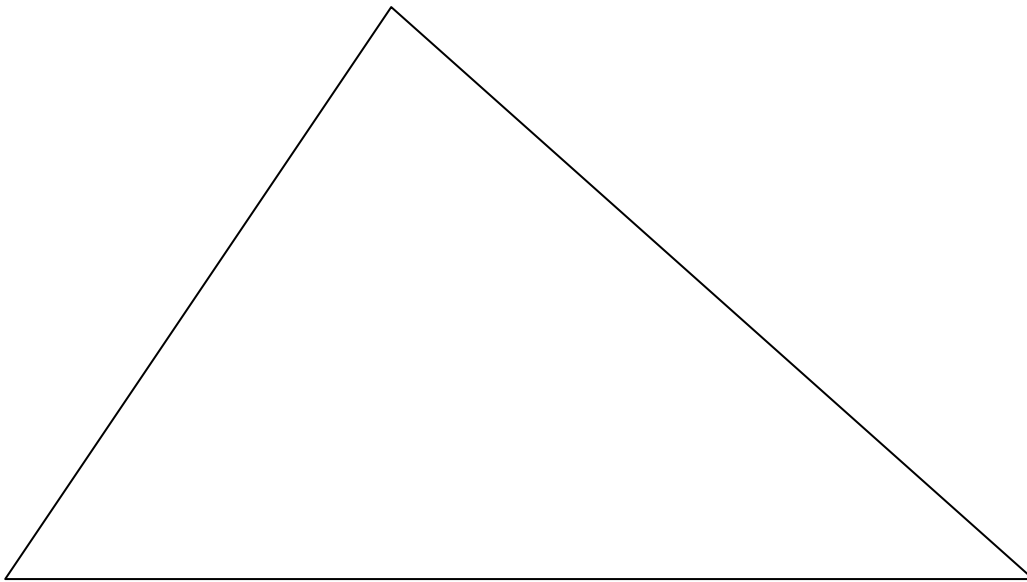
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Find the point of concurrency for all angle bisectors of this triangle.

Is there an interesting circle related to the triangle at this point of concurrency?

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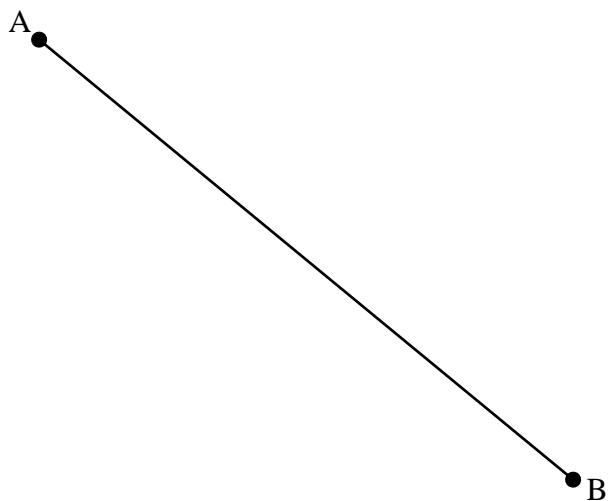


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Construct the midpoint of this segment.

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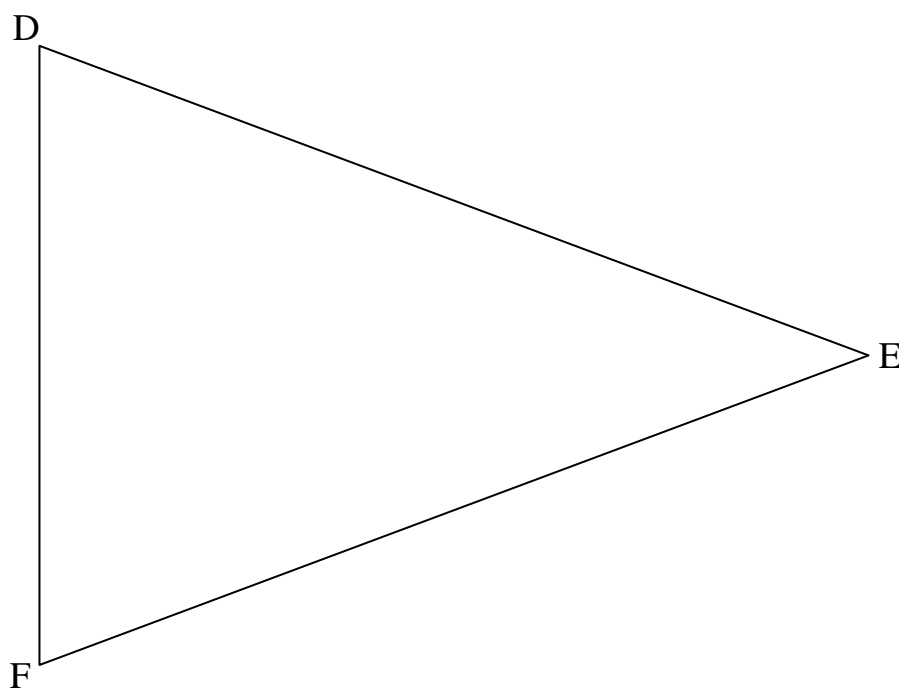
Find the point of concurrency for all medians of this triangle.

A median is a segment that connects a vertex with the midpoint of the opposite side.

Where can the point of concurrency for the medians of a triangle fall? In, on, outside?

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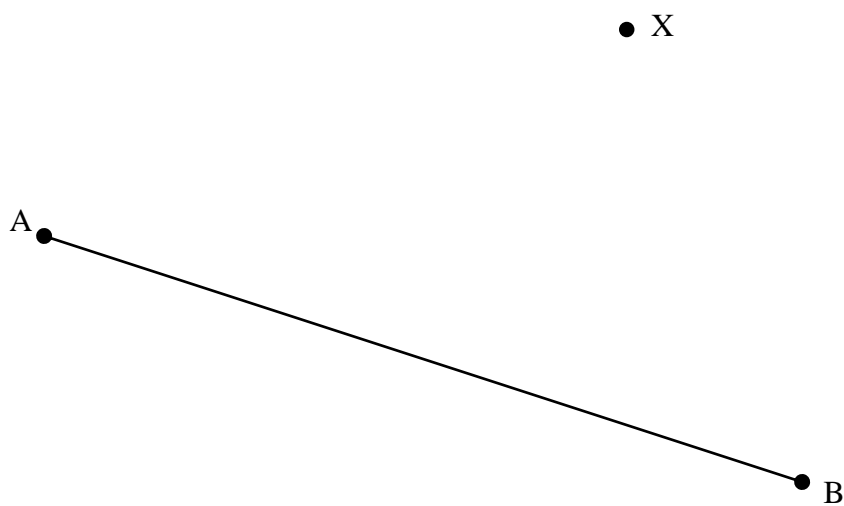


Lesson 5-3: Concurrent Lines, Medians and Altitudes

Construct a perpendicular segment from \overline{AB} to point X .

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Lesson 5-3: Concurrent Lines, Medians and Altitudes

Find the point of concurrency for all altitudes of this triangle.

An altitude is the perpendicular segment from a vertex to the opposite side. It may be inside the triangle, on a side of the triangle, or outside the triangle.

Extend the sides of the triangle as needed.

Where can the point of concurrency for the altitudes of a triangle fall? In, on, outside? Provide an example for each option you think works.

You can only use your protractor to verify the constructed angles, not to draw them.

You can only use a ruler as a straight-edge, not to measure.

