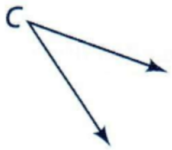
Bell Ringer - get out compass

Copy Segments and Angles

1. Construct segment XY that is congruent to segment AB.

2. Construct $\angle D$ so that $\angle D \cong \angle C$.



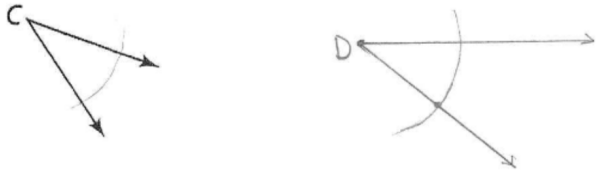
3. Given $f(x) = 3x$ and $g(x) = -4x + 2$. Find $(f - g)(x)$.

Solutions

Copy Segments and Angles

1. Construct segment XY that is congruent to segment AB.

2. Construct $\angle D$ so that $\angle D \cong \angle C$.



3. Given $f(x) = 3x$ and $g(x) = -4x + 2$. Find $(f - g)(x)$.

$3x-(-4x+2) = 3x+4x-2$

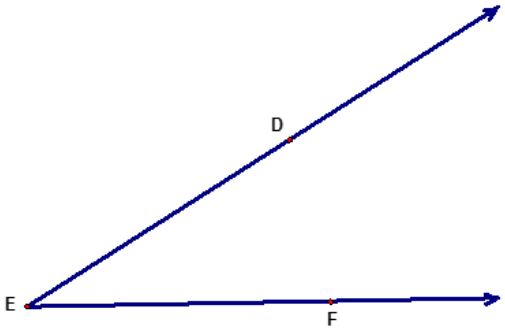
$= \boxed{7x-2}$

7A Copy Segment and Angle due tomorrow

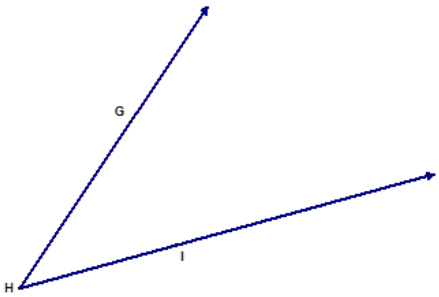
pg 7 Video pg 8

Bisect an Angle

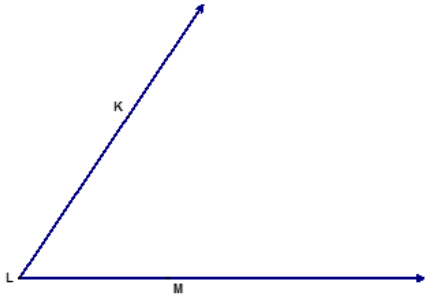
Start: Start with angle DEF that we will bisect.
Step 1: Place the compass point on the angle's vertex *E*.
Step 2: Adjust the compass to a medium wide setting. The exact width is not important.
Step 3: Without changing the compass width, draw an arc across each leg of the angle.
Step 4: The compass width can be changed here if desired. Recommended: Leave it the same.
Step 5: Place the compass on the point where one arc crosses a leg and draw an arc in the interior of the angle.
Step 6: Without changing the compass setting repeat for the other leg so that the two arcs cross.
Step 7: Using a straightedge, draw a line from the vertex to the point where the arcs cross.
Done: This is the bisector of angle DEF

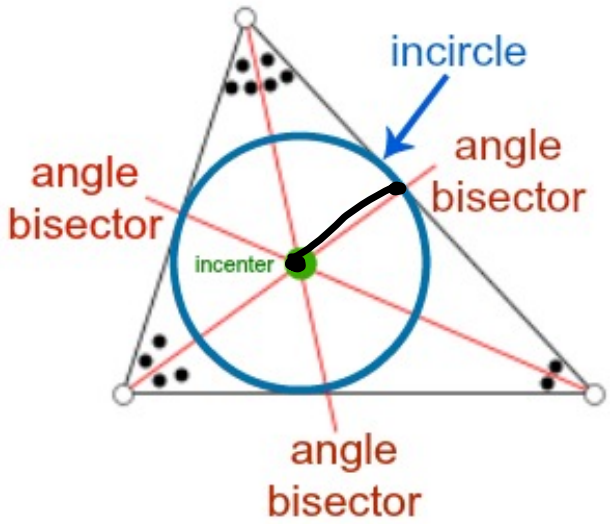


Using a straight edge and compass, no measurements, bisect angle GHI. Call the angel bisector ray HJ.



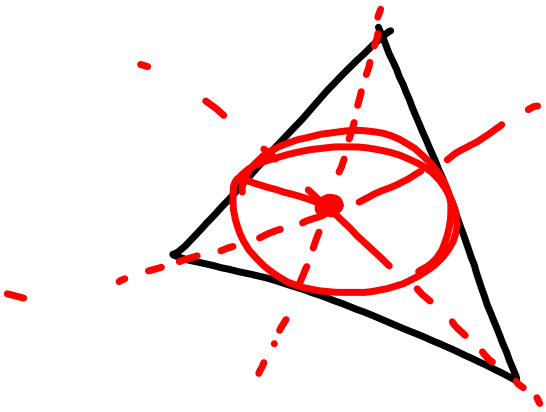
Using a straight edge and compass, no measurements, copy angle KLM and call it angle UVW. Bisect angle UVW and call the bisector ray VZ.

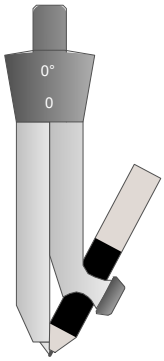


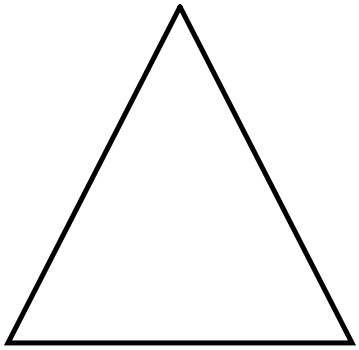

incircle
angle bisector
angle bisector
incenter
angle bisector

The angle bisectors of a triangle cross at the

incenter




0°
0

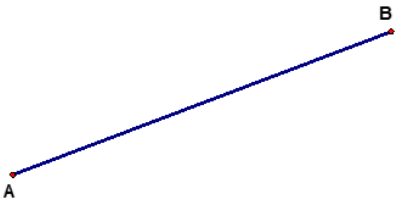


pg 3 Video pg 4

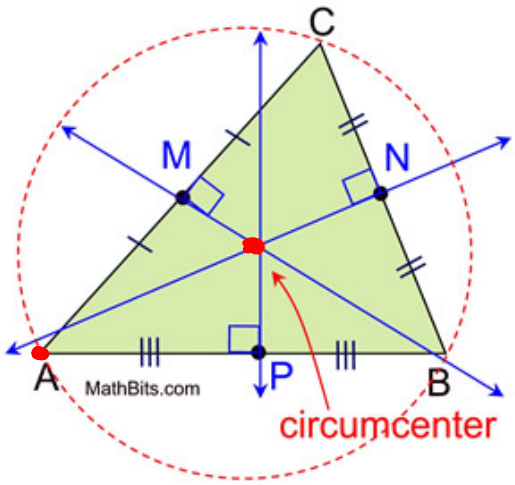
Construct a Perpendicular Bisector

Start: Start with a line segment *CD*.
Step 1: Place the compass on one end of the line segment.
Step 2: Set the compass width to approximately two thirds the line length. The actual width does not matter.
Step 3: Without changing the compass width, draw an arc above and below the line.
Step 4: Again without changing the compass width, place the compass point on the other end of the line. Draw an arc above and below the line so that the arcs cross the first two.
Step 5: Using a straightedge, draw a line between the points where the arcs intersect.
Done: This line is perpendicular to the first line and bisects it (cuts it at the exact midpoint of the line). Therefore, $CJ \cong JD$

Using a straight edge and compass, no measurements, bisect segment AB. Call the midpoint M.

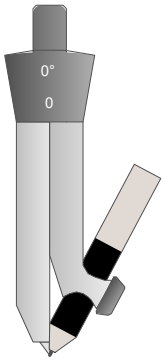


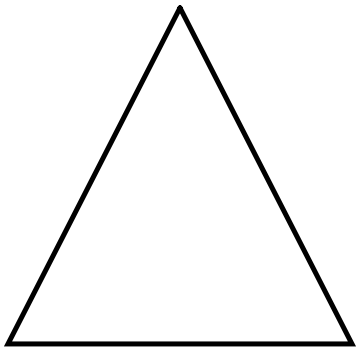
Using a straight edge and compass, no measurements, copy segment EF. Call the new segment JK. Bisect segment JK and call the midpoint N.


C
M
N
A
MathBits.com
P
B
circumcenter

The perpendicular bisectors of a triangle cross at the

circumcenter


0°
0



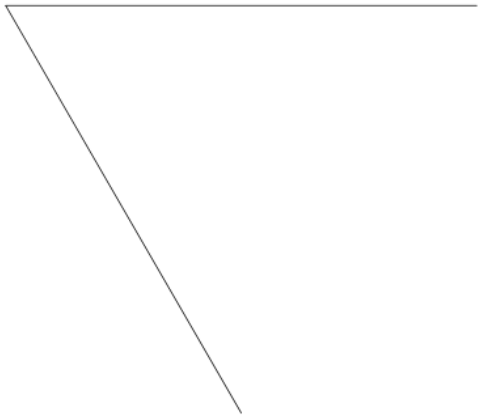
due Thursday

Math 1 Honors Name_____

7B Angle Bisectors Date_____ Hour____

Construct the bisector of each angle.

1)



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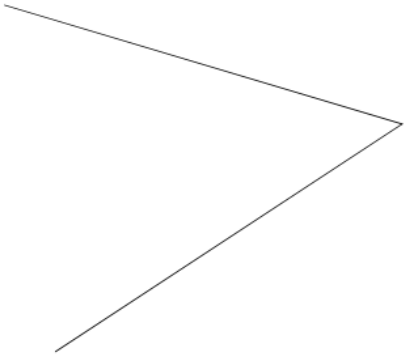

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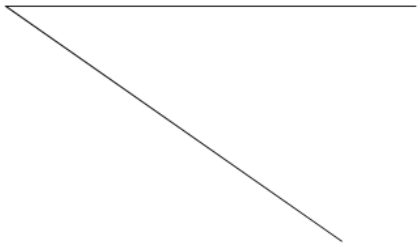
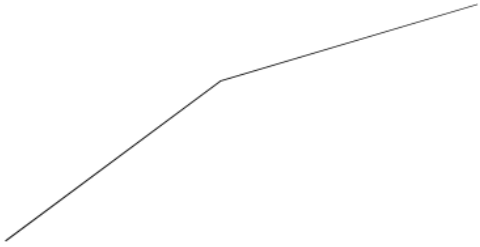


4)

5)



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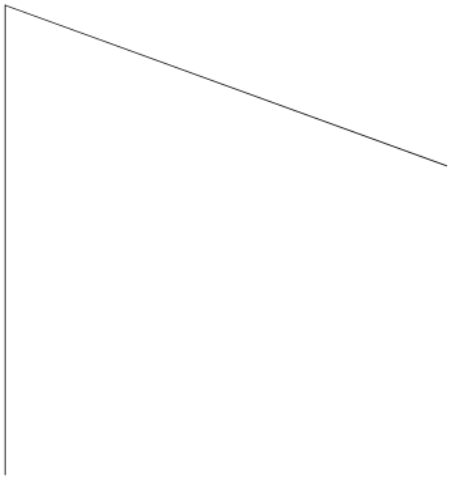
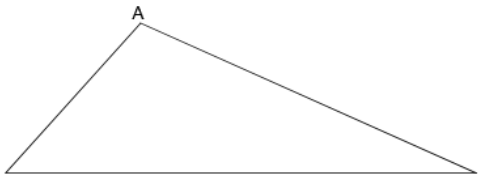


For each triangle, construct the angle bisector of angle A.

7)



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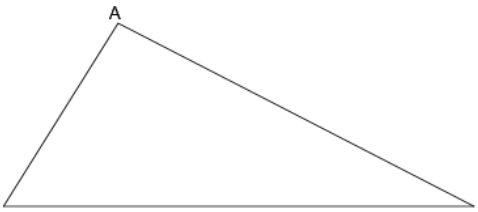
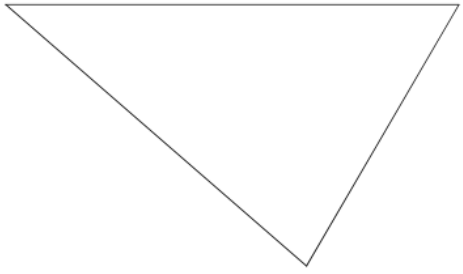


Locate the incenter of each triangle.

9)



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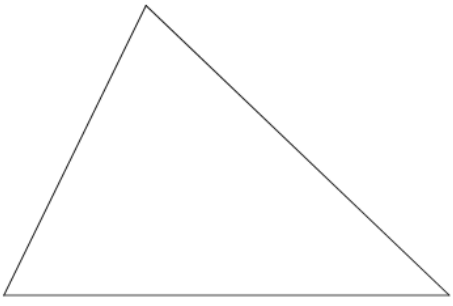
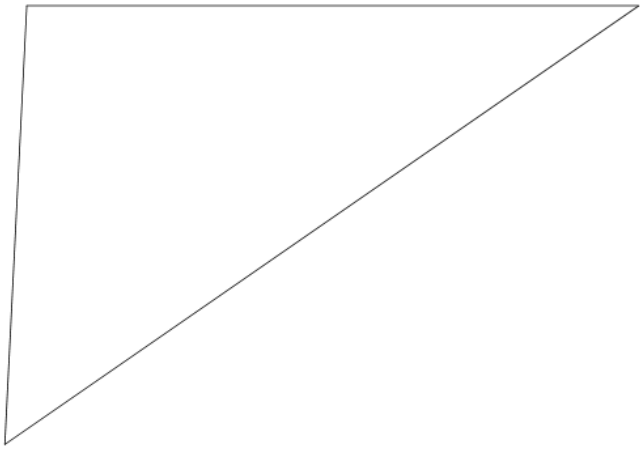


Inscribe a circle in each triangle.

11)



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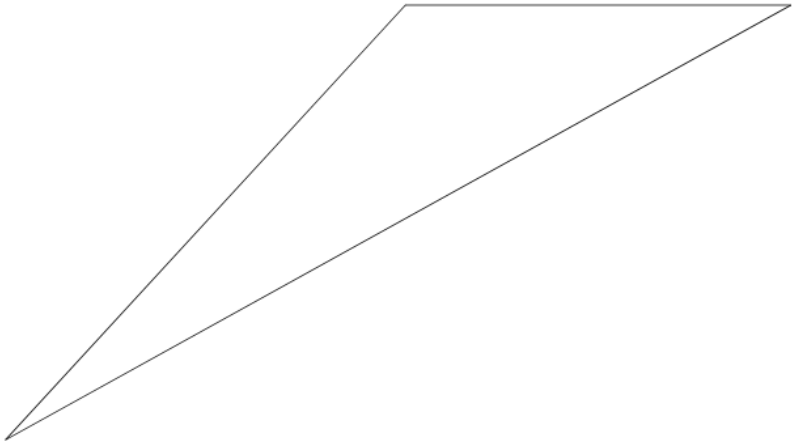


Math 1 Honors

Name_____

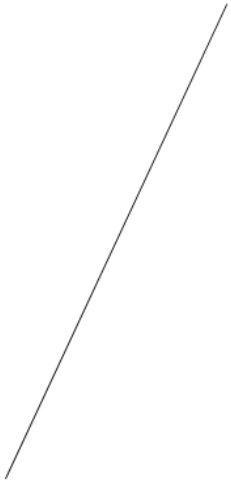
7B Perpendicular bisectors

Date_____ Hour____

Construct the perpendicular bisector of each.

1)

2)



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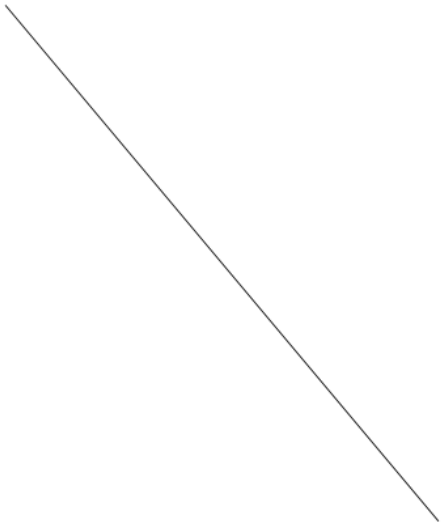

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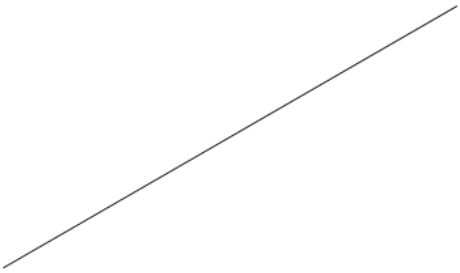
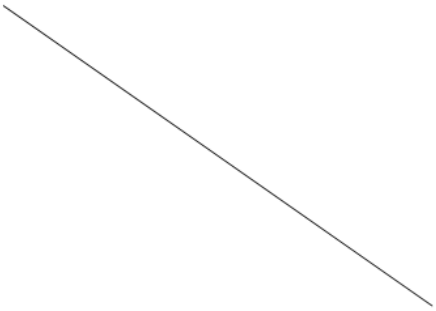


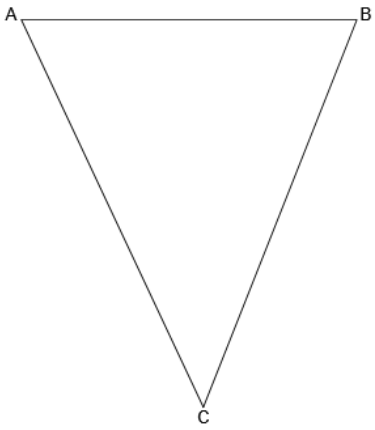
5)

6)



Construct the perpendicular bisector of side AB of each triangle.

7)



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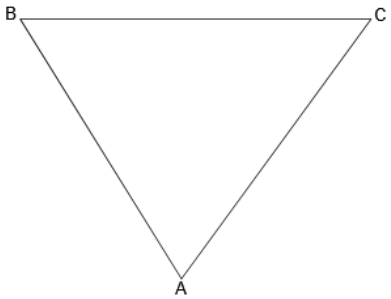
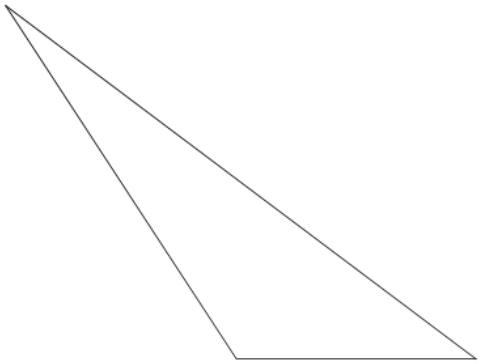


Locate the circumcenter of each triangle.

9)



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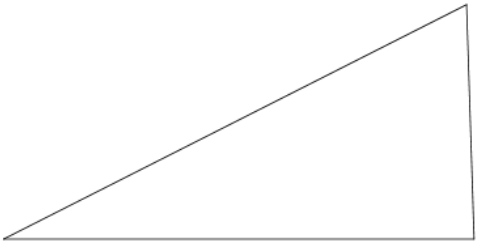
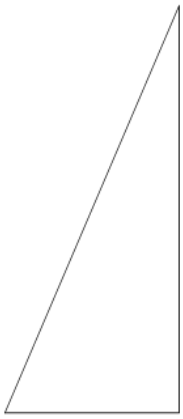


Circumscribe a circle about each triangle.

11)



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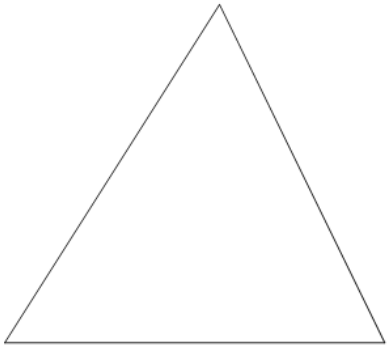

Answers to Angle Bisectors

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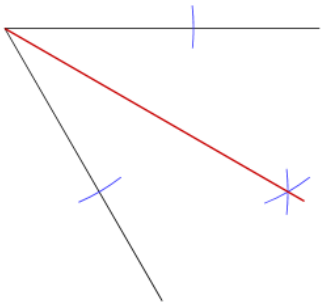

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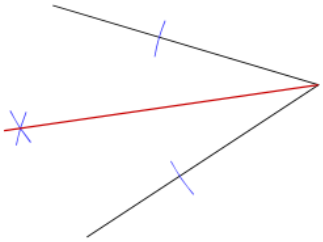

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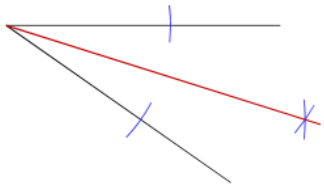

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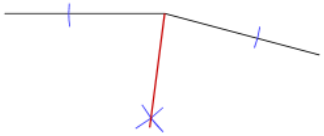

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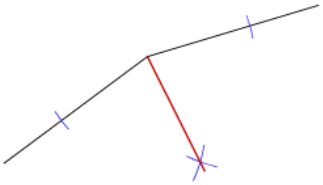

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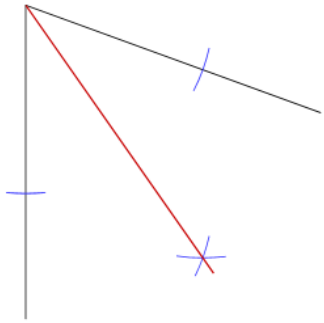

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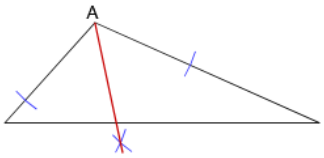

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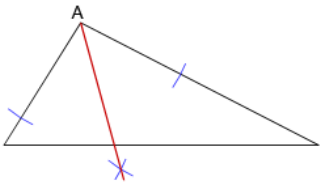

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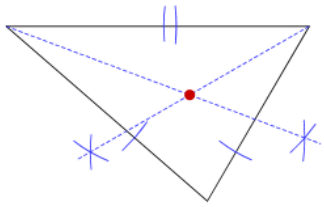

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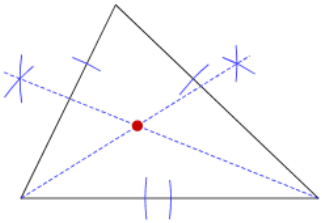

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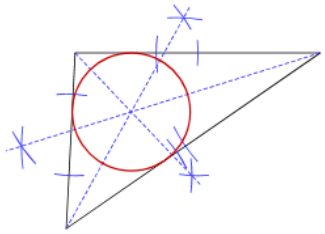

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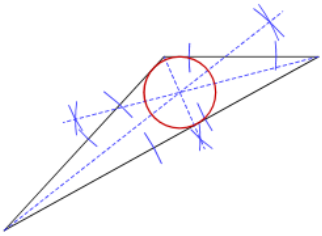
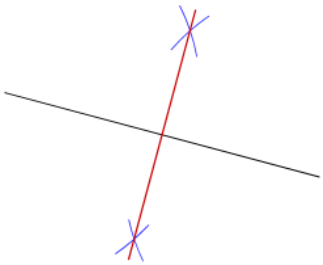


Answers to 7B Perpendicular bisectors

1)



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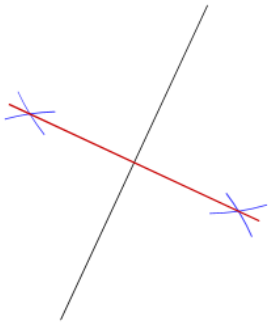

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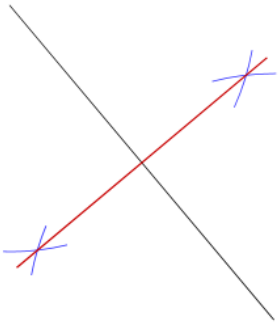

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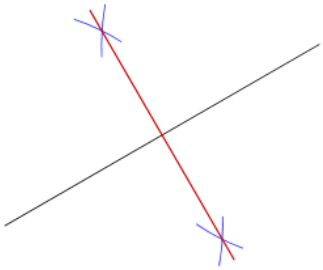

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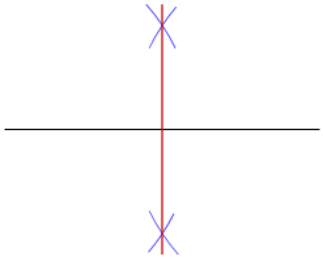

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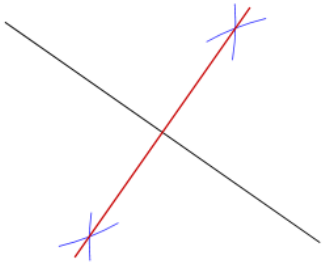

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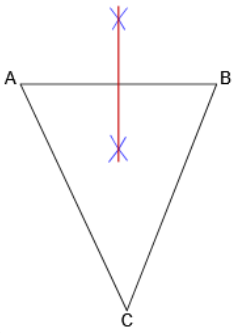

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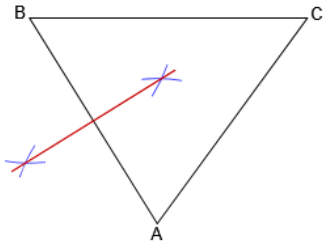
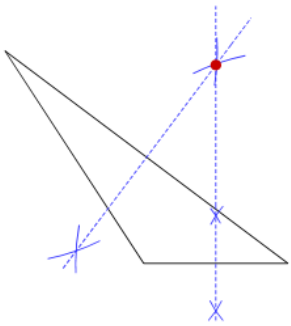


9)



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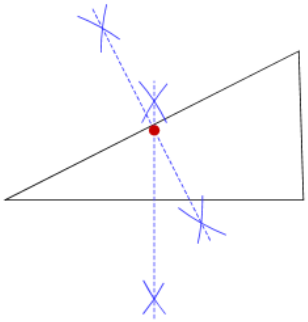

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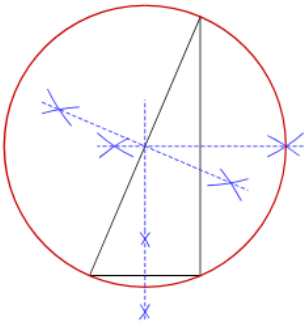

12)