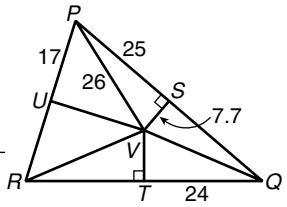
Name _____ Date _____ Class _____

LESSON 5-2

Practice B

Bisectors of Triangles

Use the figure for Exercises 1 and 2. $\overline{SV}$, $\overline{TV}$, and $\overline{UV}$ are perpendicular bisectors of the sides of $\triangle PQR$. Find each length.



1. *RV* _____

2. *TR* _____

Find the circumcenter of the triangle with the given vertices.

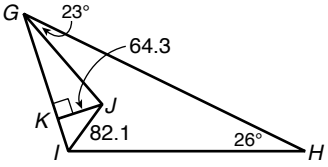
3. $A(0, 0)$, $B(0, 5)$, $C(5, 0)$

(_____, _____)

4. $D(0, 7)$, $E(-3, 1)$, $F(3, 1)$

(_____, _____)

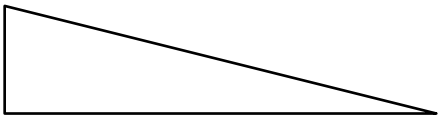
Use the figure for Exercises 7 and 8. $\overline{GJ}$ and $\overline{IJ}$ are angle bisectors of $\triangle GHI$. Find each measure.



5. the distance from *J* to $\overline{GH}$ _____

6. $m\angle JGK$ _____

Raleigh designs the interiors of cars. He is given two tasks to complete on a new production model.



7. A triangular surface as shown in the figure is molded into the driver's side door as an armrest. Raleigh thinks he can fit a cup holder into the triangle, but he'll have to put the largest possible circle into the triangle. Explain how Raleigh can do this. Sketch his design on the figure.

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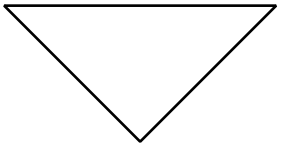
8. The car's logo is the triangle shown in the figure. Raleigh has to use this logo as the center of the steering wheel. Explain how Raleigh can do this. Sketch his design on the figure.



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