LESSON 5.2

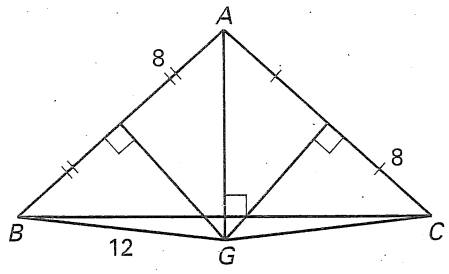
NAME _____ DATE _____

Practice C

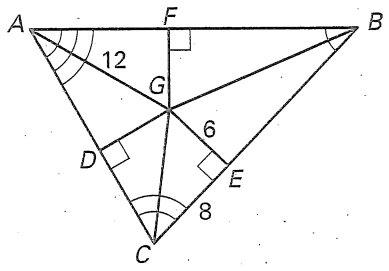
For use with pages 272–278

Find the indicated measure in each exercise.

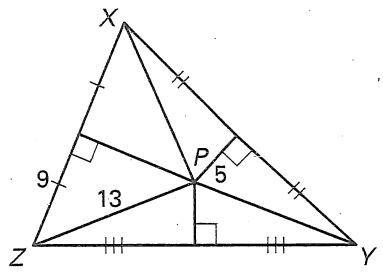
1. The perpendicular bisectors of $\triangle ABC$ meet at point G. Find GA.



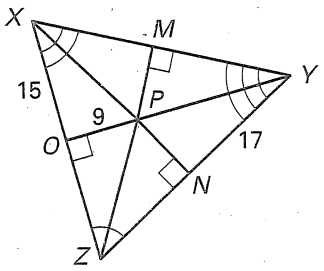
2. The angle bisectors of $\triangle ABC$ meet at point G. Find GD.



3. The perpendicular bisectors of $\triangle XYZ$ meet at point P. Find PX.



4. The angle bisectors of $\triangle XYZ$ meet at point P. Find PM.



Complete the constructions described.

5. Draw a large right isosceles triangle $\triangle ABC$. Construct the perpendicular bisector of each side. Label the circumcenter D. Measure $\overline{DA}$, $\overline{DB}$, and $\overline{DC}$.

6. Draw a large obtuse isosceles triangle $\triangle ABC$. Construct the bisector of each angle. Label the incenter D. Measure the perpendicular distance from point D to each side of the triangle.

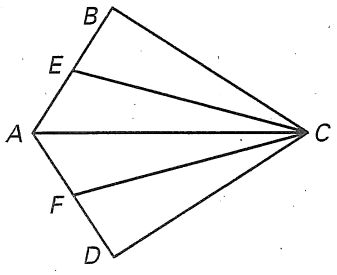
Write a two-column or a paragraph proof.

7. **Given:** $\triangle ABC \cong \triangle ADC$

$\overline{CE}$ bisects $\angle BCA$.

$\overline{CF}$ bisects $\angle DCA$.

Prove: $\triangle CEA \cong \triangle CFA$

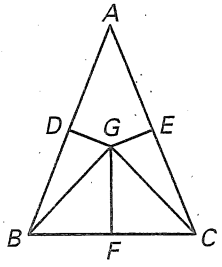


8. **Given:** Isosceles $\triangle ABC$ with $\overline{AB} \cong \overline{AC}$

$\overline{GD}$ is perpendicular bisector of $\overline{AB}$.

$\overline{GE}$ is perpendicular bisector of $\overline{AC}$.

Prove: $\triangle GDB \cong \triangle GEC$



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