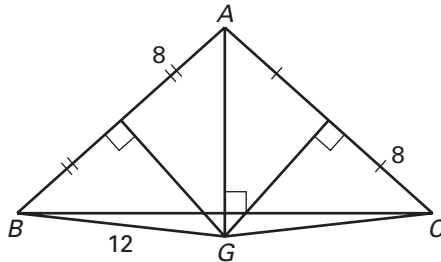


**Practice C**

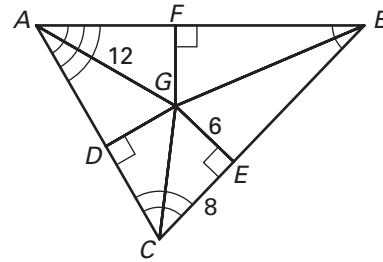
For use with pages 272–278

Find the indicated measure in each exercise.

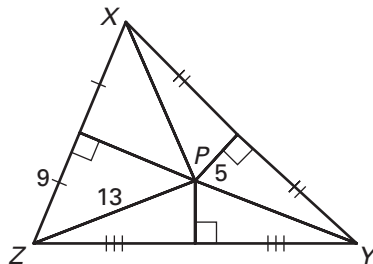
1. The perpendicular bisectors of  $\triangle ABC$  meet at point  $G$ . Find  $GA$ .



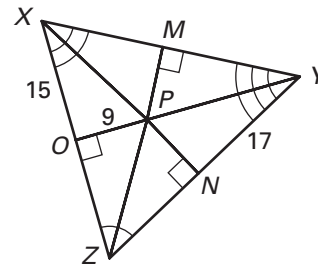
2. The angle bisectors of  $\triangle ABC$  meet at point  $G$ . Find  $GD$ .



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  $PM$ .



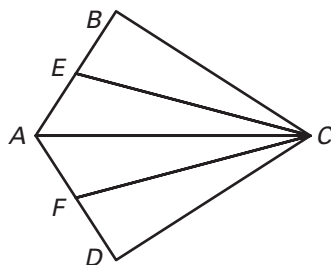
Complete the constructions described.

- 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  $\overline{DC}$ .
- 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:**  $\triangle GDB \cong \triangle GEC$

