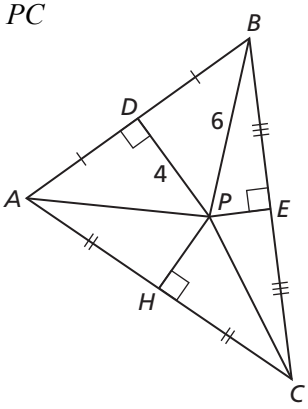
Name_____ Date _____

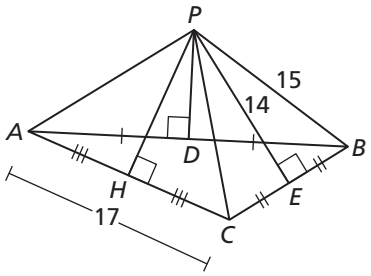
6.3 Practice B

In Exercises 1–3, find the indicated measure. Tell which theorem you used.

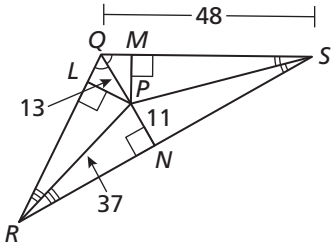
1. PC



2. AP



3. MP

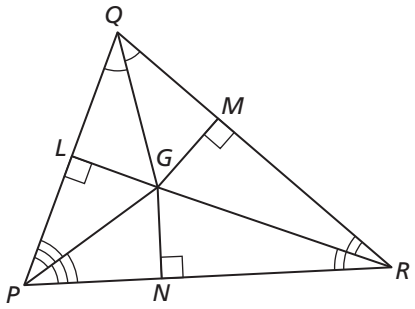


4. Find the coordinates of the circumcenter of the triangle with the vertices $A(4, 12)$, $B(14, 6)$, and $C(-6, 2)$.

In Exercises 5 and 6, use the diagram and the given information to find the indicated measures.

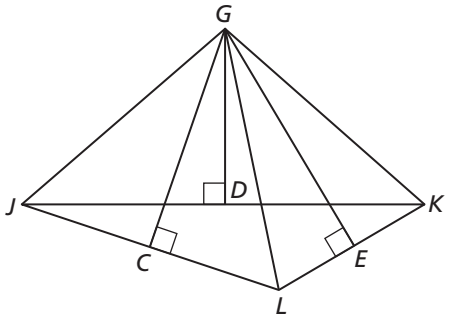
5. $LG = 6x - 14$, $NG = -3x + 22$

Find MG and NG.

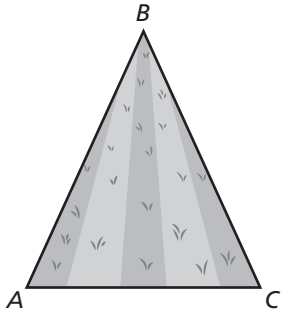


6. $GL = 4x - 2$, $GE = 3x + 2$, $GK = 2x + 8$

Find GJ and GE.



7. You are using a rotary sprinkler to water the triangular lawn.



a. Explain how to locate the sprinkler the same distance from each side of the triangular lawn.

b. Explain how to locate the sprinkler the same distance from each vertex of the triangular lawn.

c. Which is closer to vertex B, the *incenter* or the *circumcenter*? Explain your reasoning.

8. Explain when the circumcenter of a triangle lies outside the triangle.

9. In the figure at the right, what value of x makes G the incenter of $\triangle JKL$?