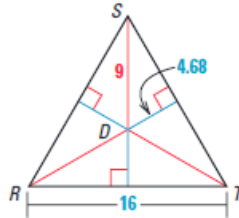## 5-2 Worksheet

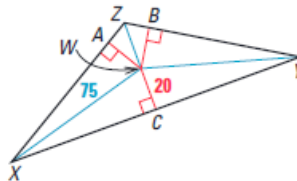**Complete each statement with *always*, *sometimes*, or *never*.**

1) A perpendicular bisector of a triangle _____ passes through the midpoint of a side of the triangle.

2) The angle bisectors of a triangle _____ intersect at a single point.

3) The angle bisectors of a triangle _____ meet at a point outside the triangle.

4) The circumcenter of a triangle _____ lies outside the triangle.

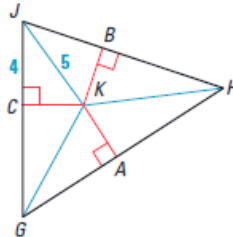**In each case, find the indicated measure.**

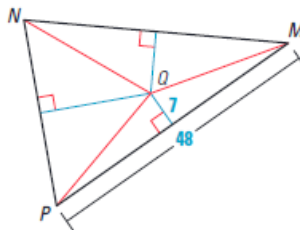5) The perpendicular bisectors of ΔRST meet at point D. Find DR.

6) The angle bisectors of ΔXYZ meet at point W. Find WB.

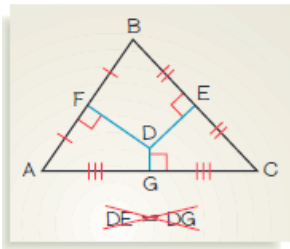7) The angle bisectors of ΔGHJ meet at point K. Find KB.

8) The perpendicular bisectors of ΔMNP meet at point Q. Find QN.

Explain why the student's conclusion is *false*. Then state a correct conclusion that can be deduced from the diagram.

9)

DE ~~DG~~

10)

MQ ~~MN~~