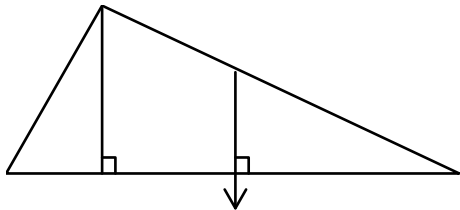NAME:_____

1. Write a paragraph proof of the following theorem: If a triangle is a right triangle, then the acute angles are complementary.

2. Write a flow proof to prove that the perpendicular bisector of the side of a scalene triangle is parallel to the altitude to that side.

[1] By the definition of right angle, $m\angle F = 90$ and $m\angle E + m\angle F + m\angle G = 180$ by the Triangle Angle-Sum Theorem. Hence $m\angle E + 90 + m\angle G = 180$ by substitution. By the Subtraction Property of Equality, $m\angle E + m\angle G = 90$, so $\angle E$ and $\angle G$ are complementary by definition.

[2] Check students' work. They should show that since both are perpendicular to the same line, they form $90°$ angles with the line. By the converse of the Corresponding Angles Postulate, the lines are parallel.