

Name \_\_\_\_\_

## Triangles—Perpendicular Bisectors & Angle Bisectors

Open the Transfers folder.

Open the *Perpendicular bisector activity.tns* and rename it by inserting your initials in front of the file name. Work through the activity and record your answers on this sheet.

1. Where do the perpendicular bisectors intersect for each type of triangle?

- a. Acute triangle -- **inside the triangle**
- b. Right triangle – **on the side of the triangle**
- c. Obtuse triangle – **outside of the triangle**

2. What observation did you make about the circle and the triangle? **The circle goes through each of the vertices of the triangle.**

3. The point of intersection of the perpendicular bisectors is the **circumcenter**.

Open the *Angle bisector activity.tns* and rename it by inserting your initials in front of the file name.

Work through the activity and record your answers on this sheet.

4. Where do the angle bisectors intersect for each type of triangle?

- a. Acute triangle -- **inside the triangle**
- b. Right triangle -- **inside the triangle**
- c. Obtuse triangle -- **inside the triangle**

5. What observation did you make about the circle and the triangle? **The circle goes through a point on each side of the circle. The point is the intersection of the line that is perpendicular to the side of the triangle through the point of concurrency (incenter) and the side of the triangle.**

6. The point of intersection of the angle bisectors is the **incenter**.