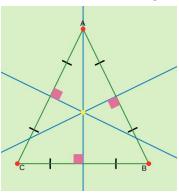
Perpendicular Bisector of a Triangle:

Concurrent Lines:

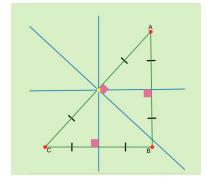
Point of Concurrency:

The 3 perpendicular bisectors are concurrent The point of concurrency can be:

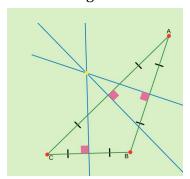
1. Inside the triangle



2. On the triangle

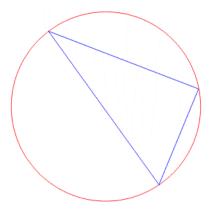


3. Outside the triangle



Circumcenter:

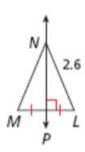
Circumscribe:



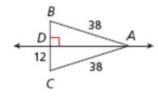
| Perpendicular Bisector Theorem | If a point is on the perpendicular bisector of a segment, then it is equidistant from the endpoints of the segment. | AYB |
|--|--|-------|
| Converse of the Perpendicular Bisector Theorem | If a point is equidistant from the endpoints of a segment, then it is on the perpendicular bisector of the segment | A Y B |

1. Find each measure:

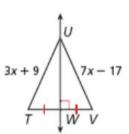
a.
$$MN =$$



b.
$$BC =$$



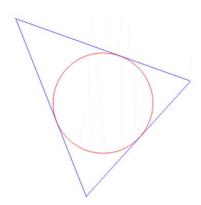
c.
$$TU =$$



Angle Bisector of a Triangle:

Incenter:

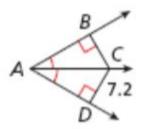
Inscribe:



| Angle Bisector Theorem | If a point is on the bisector of an angle, then it is equidistant from the sides of then angle | A C |
|---|---|-------|
| Converse of the Angle Bisector Theorem | If a point in the interior of an angle is equidistant from the sides of the angle, then it is on the bisector of the angle. | A C B |

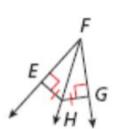
2. Find each measure:

a.
$$BC =$$



b. If
$$m/_EFG = 50^{\circ}$$

then $m/_EFH =$



c.
$$m / MKL =$$

