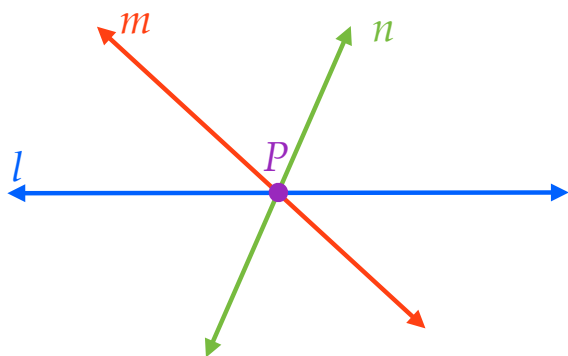
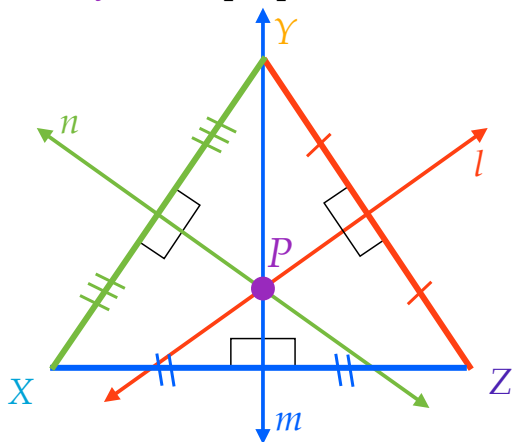


When three or more lines intersect at one point, the lines are said to be **concurrent**.



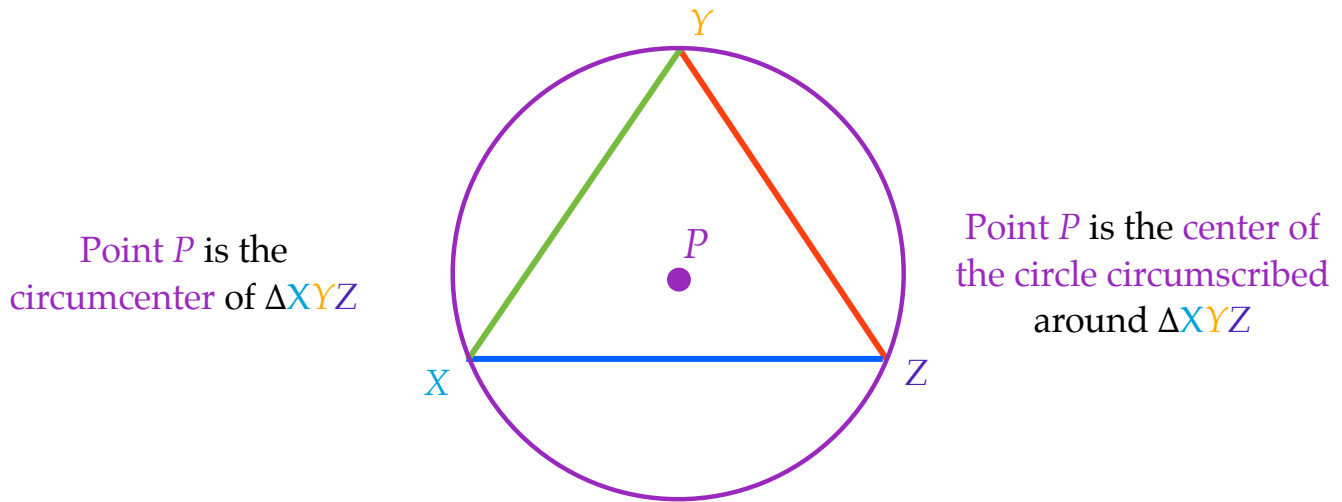
Circumcenter of a Triangle

The **point of concurrency** of the perpendicular bisectors of a triangle.



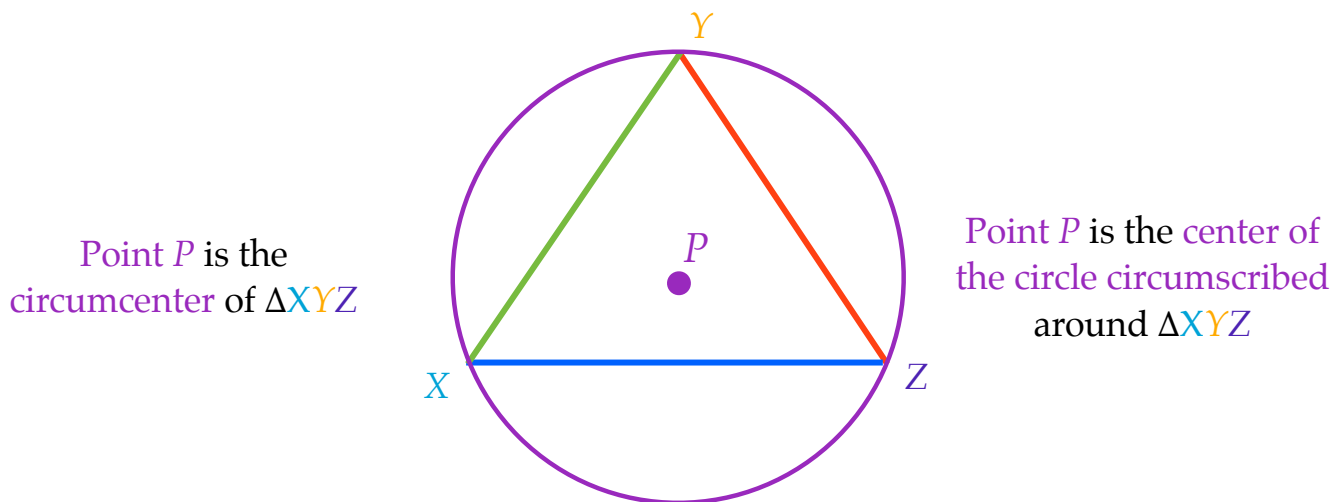
Circumcenter of a Triangle

The **circumcenter** is the center of the circle that is circumscribed around the triangle.



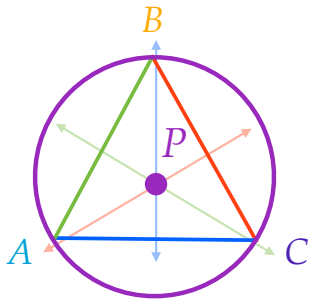
Circumcenter Theorem

The **circumcenter of a triangle** is equidistant from all vertices of the triangle.

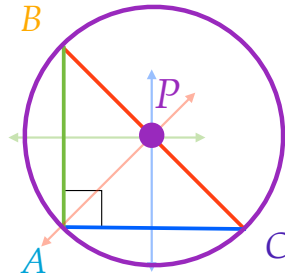


Circumcenter of a Triangle

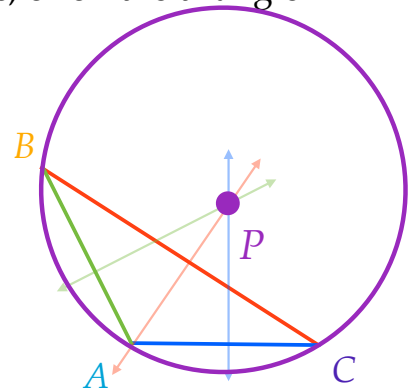
The **circumcenter** of a triangle can be inside, outside, or on the triangle.



Point P , the **circumcenter**,
is inside of $\triangle ABC$

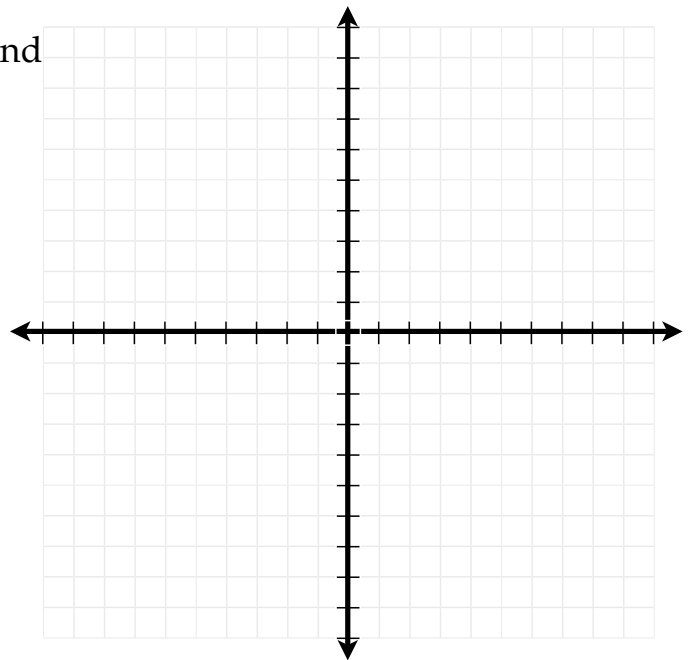


Point P , the **circumcenter**,
is on of $\triangle ABC$



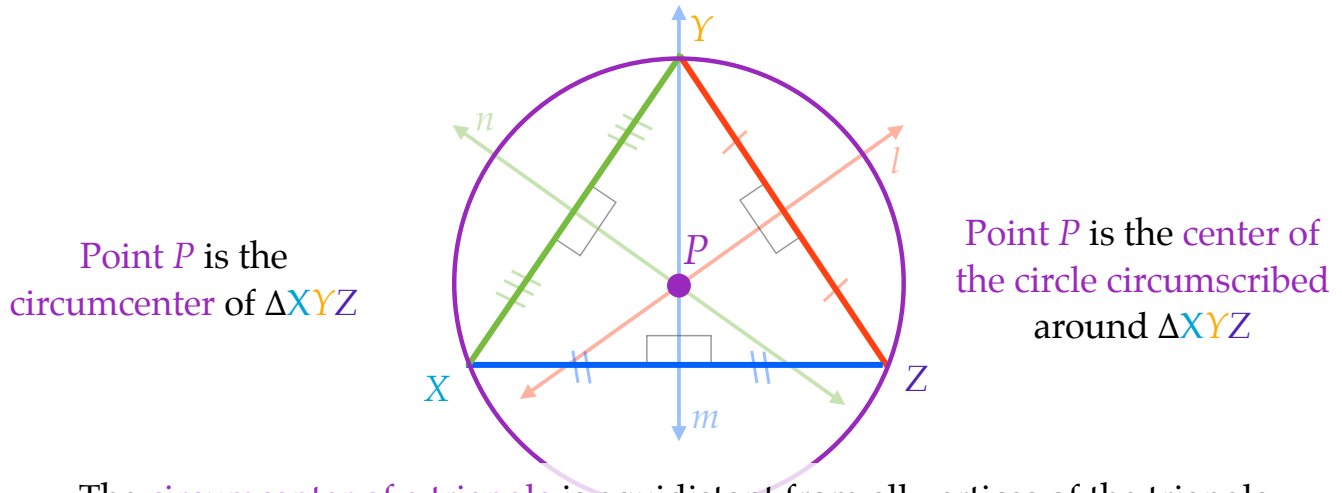
Point P , the **circumcenter**,
is outside of $\triangle ABC$

$\triangle XYZ$ has vertices $X(0,0)$, $Y(4,0)$ and $Z(0,-6)$. Find
center and radius of the circle that can be
circumscribed around $\triangle XYZ$.



Circumcenter of a Triangle

The **point of concurrency** of the perpendicular bisectors of a triangle.



The **circumcenter of a triangle** is equidistant from all vertices of the triangle.