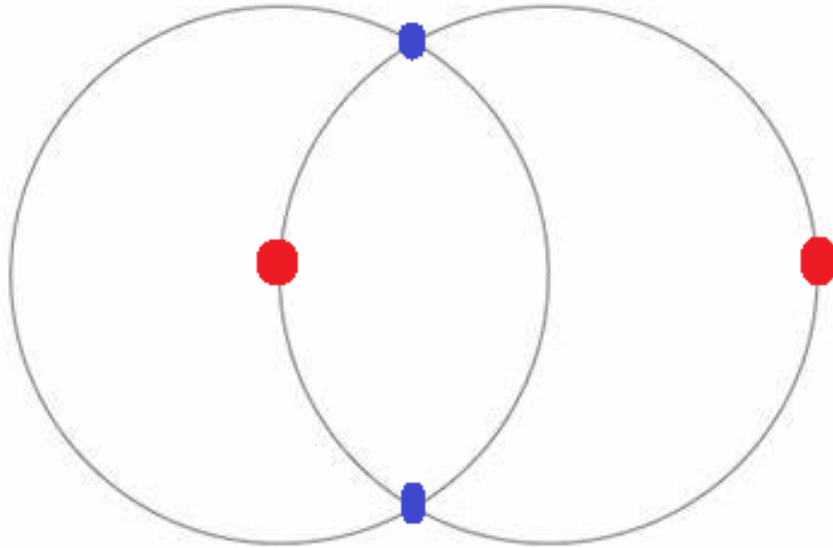


Two circles, where the second has one point inside and one point outside the first circle.



It looks like the second circle and the first circle have two points in common. However, in synthetic geometry one must either assume it or prove it from previously established results.