

4.3.1 Terminology

- **Arc:** any connected part of a circle. Specifying two end points of an arc and a center allows for two arcs that together make up a full circle.
- **Center:** the point equidistant from all points on the circle.
- **Chord:** a line segment whose endpoints lie on the circle, thus dividing a circle into two segments.
- **Circumference:** the length of one circuit along the circle, or the distance around the circle.
- **Diameter:** a line segment whose endpoints lie on the circle and that passes through the center; or the length of such a line segment. This is the largest distance between any two points on the circle. It is a special case of a chord, namely the longest chord for a given circle, and its length is twice the length of a radius.
- **Disc:** the region of the plane bounded by a circle.
- **Radius:** a line segment joining the center of a circle with any single point on the circle itself; or the length of such a segment, which is half (the length of) a diameter.
- **Sector:** a region bounded by two radii of equal length with a common center and either of the two possible arcs, determined by this center and the endpoints of the radii.
- **Segment:** a region bounded by a chord and one of the arcs connecting the chord's endpoints. The length of the chord imposes a lower boundary on the diameter of possible arcs. Sometimes the term segment is used only for regions not containing the center of the circle to which their arc belongs to.
- **Secant:** an extended chord, a coplanar straight line, intersecting a circle in two points.
- **Semicircle:** one of the two possible arcs determined by the endpoints of a diameter, taking its midpoint as center. In non-technical common usage it may mean the interior of the two dimensional region bounded by a diameter and one of its arcs, that is technically called a half-disc. A half-disc is a special case of a segment, namely the largest one.
- **Tangent:** a coplanar straight line that has one single point in common with a circle ("touches the circle at this point").

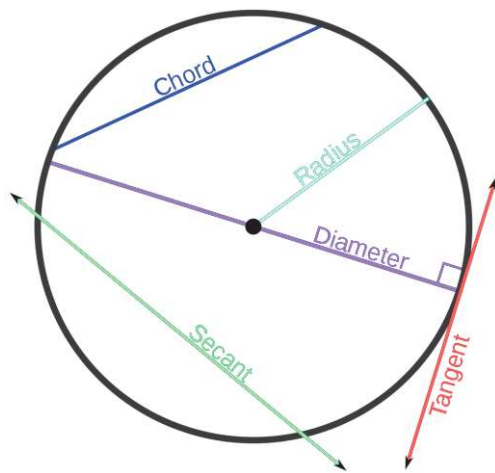


Figure: Chord, secant, tangent, radius, and diameter

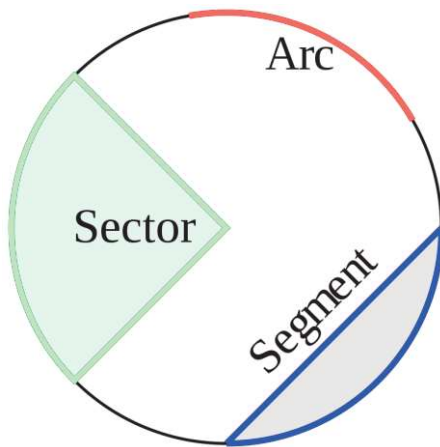


Figure: Arc, sector, and segment