

# Chapter 11

## Circles 1

A **circle** is a plane curve whose points are all the same distance from a fixed point called the **centre**.

### Parts of a Circle

#### Circumference

The outline of the circle.

#### Arc

Any part of the circumference.

#### Chord

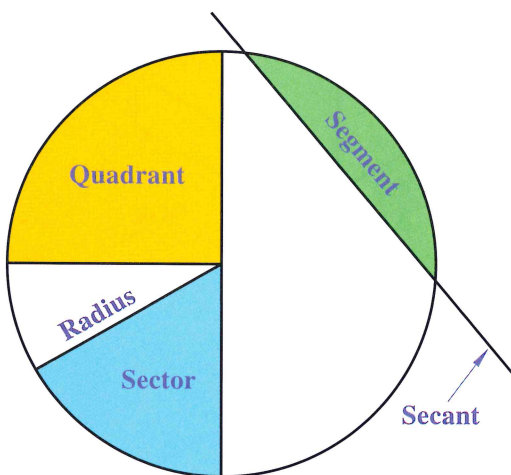
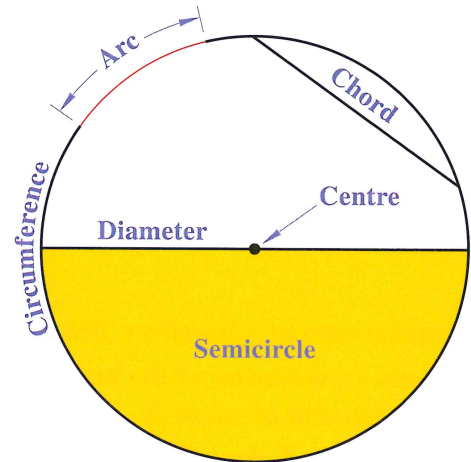
A straight line joining two points on the circumference.

#### Diameter

A chord that passes through the centre. The symbol for diameter is  $\varnothing$ .

#### Semicircle

Half of a circle.



#### Quadrant

A quarter of a circle.

#### Segment

The part of a circle enclosed by a chord and its arc.

#### Radius

A line joining the centre to a point on the circumference. It is often abbreviated to **R**. The plural of radius is **radii**.

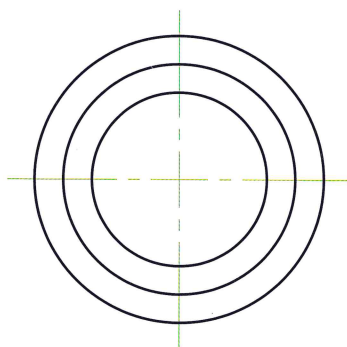
#### Sector

The part enclosed by two radii and an arc.

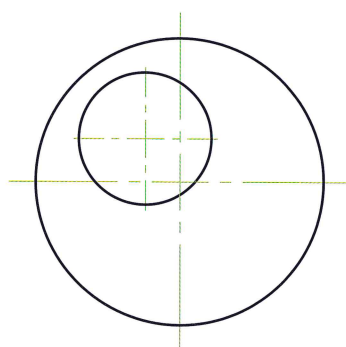
#### Secant

A line that intersects a circle at two points.

### Concentric and Eccentric Circles



Concentric circles



Eccentric circles

**Concentric circles** are circles that have the same centre but different radii.

**Eccentric circles** are circles that have different centres and different radii.