

# Focus of a conic section

A **conic section** can be described as the locus of a point  $P$  whose distance  $PS$  from a fixed point  $S$  is in some fixed ratio  $e$  to its perpendicular distance  $PN$  from a fixed line.

The point  $S$  is called the *focus* of the conic, the fixed line is called the *directrix* of the conic, and the fixed ratio  $e$  is called the *eccentricity* of the conic.