

# Directrix of an ellipse

If  $A$  and  $B$  are two points, then the locus of points  $P$  such that  $AP + BP = c$  for a constant  $c > 2AB$  is an ellipse.  $A$  and  $B$  are the *foci* (plural of focus) of this ellipse.

If an ellipse has centre  $(0,0)$ , *eccentricity*  $e$  and *semi-major axis*  $a$  in the  $x$ -direction, then its foci are at  $(\pm ae, 0)$  and its *directrices* are  $x = \pm a/e$ .