Directrix of a hyperbola



The hyperbola with equation

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$$

has foci at $(\pm ae, 0)$ and directrices $x = \pm a/e$, where its eccentricity e is given by $b^2 = a^2(e^2 - 1)$.