

Solution (#1138) In terms of the \tilde{X} and \tilde{Y} co-ordinates the foci are $(\pm 1, 0)$ and directrices $\tilde{X} = \pm 2$.
In the original co-ordinates the directrices have equations

$$2x - y = 2 \pm 2\sqrt{5}$$

and the foci are $x = 1 \pm 2/\sqrt{5}$ and $y = \mp 1/\sqrt{5}$.