Parabolic Case

In the parabolic case,

$$a\left(\frac{\mathrm{d}y}{\mathrm{d}x}\right)^2 - 2b\left(\frac{\mathrm{d}y}{\mathrm{d}x}\right) + c = 0$$

leads to only one root.

Take η as the single integration constant and ξ as anything else, say $\xi = x$.

Canonical form:

$$a' u_{\xi\xi} + d' = 0$$