$$x^2 + Cy^2 = 2y.\ C = \frac{2y - x^2}{y^2}.\ 0 = \left(\frac{2y - x^2}{y^2}\right)' = \frac{(2y' - 2x)y^2 - \left(2y - x^2\right) \cdot 2yy'}{y^4}.$$

$$2y^2y' - 2xy^2 - 4y^2y' + 2x^2yy' = 0.\ \left(x^2 - y\right)yy' = xy^2.\ y' = \frac{xy}{x^2 - y}.$$