28. $(1+x^2y^2)y + (xy-1)^2 xy' = 0$

$xy = u \rightarrow \quad y = \frac{u}{x}$

$dy = \frac{1}{x}du - \frac{1}{x^2}u\,dx$

$(1+x^2y^2)y\,dx + (xy-1)^2 x\,dy = 0$

$(1+x^2y^2)y\,dx + (xy-1)^2 x\left(\frac{1}{x}du - \frac{1}{x^2}u\,dx\right) = 0$

$(1+x^2y^2)y\,dx + (xy-1)^2 du - \frac{(xy-1)^2}{x}u\,dx = 0$

$\left(1+\cancel{x^2}\frac{u^2}{\cancel{x^2}}\right)\frac{u}{x}dx + (u-1)^2 du - \frac{(u-1)^2}{x}u\,dx = 0$

$\left[(1+u^2)u\frac{1}{x} - \frac{u(u-1)^2}{x}\right]dx + (u-1)^2 du = 0$

$\frac{1}{x}\left(u(1+u^2) - \underbrace{u(u-1)^2}_{-u(u^2-2u+1)}\right)dx + (u-1)^2 du = 0$

$\frac{1}{x}\left(\cancel{u} + \cancel{u^3} - \cancel{u^3} + 2u^2 - \cancel{u}\right)dx + (u-1)^2 du = 0$

$\frac{2u^2}{x}dx + (u-1)^2 du = 0$

$\frac{2}{x}dx + \frac{(u-1)^2}{u^2}du = 0$

$\int \frac{(u-1)^2}{u^2}du = -2\int\frac{dx}{x} + c$

$\int\left(1 - \frac{2}{u} + \frac{1}{u^2}\right)du = -2\ln|x| + c$

$u - 2\ln|u| - \frac{1}{u} = +\ln|x|^{-2} + c$

$$\frac{u^2-1}{u} - 2\underbrace{\ln|u|}\; = \underbrace{\ln|x|^{-2}} + c$$

$$\frac{u^2-1}{u} = \ln|u|^2 + \ln|x|^{-2} + c$$

$$= \ln\left(\frac{u}{x}\right)^2 + c$$

$$\ln\left(\frac{u}{x}\right)^2 = \frac{u^2-1}{u} - c$$

$$\left(\frac{u}{x}\right)^2 = e^{\frac{u^2-1}{u} - c} = e^{u-\frac{1}{u}}\, e^{-c}$$

$u = xy$: $\quad y^2 = e^{xy - \frac{1}{xy}}\, C_1$

$$\therefore \boxed{C_2\, y^2 = e^{xy - \frac{1}{xy}}}$$