$$\frac{dy}{dx} - \frac{y}{2x} = \frac{1}{1(1-y)} \tag{1}$$

$$2\sqrt{-x}e^{\frac{-y}{\sqrt{-2x}}} + \frac{\sqrt{2\pi}}{2}erf\left(\frac{y}{\sqrt{-2x}}\right) + c = 0 \tag{2}$$

$$\begin{aligned}
\int_L -\vec{r}dl &= \int_L -xdx + \int_L -ydy && (3)\\
&= \int_0^{2\pi} \frac{r^2\sin(2t)}{4}dt && (4)\\
&= \int_0^{2\pi} 0dt && (5)\\
&= 0 && (6)
\end{aligned}$$

Package amsmath: Erroneous nesting of equation structures; (amsmath) trying to recover with ‘aligned’.