

$$\frac{dy}{dx} = \frac{f(x)}{g(y)}$$

$$g(y) dy = f(x) dx$$

$$\int g(y) dy = \int f(x) dx$$

$$\overset{||}{G(y) + C_1} \quad \overset{||}{F(x) + C_2}$$

$$G(y) + C_1 = F(x) + C_2$$

$$G(y) = F(x) + C_2 - C_1$$

$$= F(x) + C_3$$

$$G^{-1}(G(y)) = G^{-1}(F(x) + C_3)$$

$$\overset{||}{y}$$