$\frac{1-2x}{3x+1}$

$\frac{1-2y}{3y+1} = x$

$1-2y = 3xy + x$

$-3xy \qquad -3xy \quad -1$

$-1 \cdot \quad -3xy - 2y = -1 + x \cdot -1$

$3xy + 2y = 1-x$

$y(3x+2)$

$\boxed{y = \frac{1-x}{3x+2}}$

$\int \frac{x}{\frac{x^2}{2}+4} \, dx \qquad u = x^2 + 4$

$du = 2x$

$\frac{2}{2}$

$\boxed{\int \frac{du}{2u}} \qquad \frac{1}{2} du = x \, dx$