

$$y' = 4 \cos x, \quad y(0) = -1$$

Integrate:

$$y = \int 4 \cos x \, dx = 4 \sin x + C$$

Apply initial condition:

$$y(0) = 4 \sin(0) + C = -1$$

$$C = -1$$

So, $y = 4 \sin x - 1$