Answer on Question #79217 – Math – Differential Equations

Question

Solve the general solution of

$$\frac{dy}{dx} = e^x + x + sinx$$

Solution

$$dy = (e^x + x + sinx)dx$$

Integrate

$$\int dy = \int (e^x + x + sinx)dx$$

$$y = e^x + \frac{1}{2}x^2 - \cos x + const$$

Answer: $y = e^x + \frac{1}{2}x^2 - \cos x + const.$