Solution to an ODE

Quiz: Solution to an ODE.
Which of the following is a solution to the ODE \( \frac{dy}{dx} = 2y + 1? \)

Choices:

a) \( y = ce^{2x} - 1. \)
b) \( y = x^2 + x + c. \)
c) \( y = e^{x/2} + c. \)
d) \( y = ce^{2x} - 1/2. \)
e) \( y = e^{2x} + c. \)
f) None of the above

Pick what you think is the correct choice and then look at the answer.