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✔ Your answer is correct.

Using the Laplace transform, solve the IVP.

$$y_1' = y_1 + 30u(t-2)e^{4t}, \quad y_2' = y_1 + 2y_2, \quad y_1(0) = 0, \quad y_2(0) = 8$$

NOTE: Use u to denote the unit step function.

$y_1(t) =$ $\boxed{10\left(e^{4t} - e^{t+6}\right)u\left(t-2\right)}$ ✔

$y_2(t) =$ $\boxed{8\,e^{2t} + 5\left(2\,e^{t+6} - 3\,e^{2t+4} + e^{4t}\right)u\left(t-2\right)}$ ✔

⌨

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Attempts: 1 of 3 used

Using multiple attempts will impact your score.
10% score reduction after attempt 2