

$$\textcircled{29} \quad \underline{\alpha =} \quad sY(s) - \alpha + 4Y(s) = \frac{1}{s^2}$$

$$sY(s) + 4Y(s) = \frac{1}{s^2} + \alpha$$

$$\textcircled{29} \quad Y(s) = \frac{1}{s^2 \cdot (s+4)} + \frac{\alpha}{s+4}$$

$$2 = \frac{1}{16} (e^{-4} + 3) + \alpha e^{-4}$$

$$\alpha = \frac{1}{16} (29e^4 - 1) \approx 38,897$$

$$\begin{aligned} -\alpha e^{-4} &= \frac{1}{16} (e^{-4} + 3) - 2 & -2e^{-4} &= \frac{1}{16}e^{-4} - \frac{29}{16} \\ -\alpha &= \frac{1}{16} (e^{-4} + 3) \cdot e^{-4} - 2e^{-4} & -\alpha &= \frac{1}{16} - \frac{29e^4}{16} \\ -\alpha &= \frac{1}{16} (e^{-4} + 3) \cdot e^{-4} - 2e^{-4} & \alpha &= -\frac{1}{16} + \frac{29e^4}{16} \\ \alpha &= -\frac{1}{16} (e^{-4} + 3) \cdot e^{-4} + 2e^{-4} & \alpha &= \frac{1}{16} (29e^4 - 1) \end{aligned}$$

$$\alpha = -\frac{1}{16} e^{-4-4} - \frac{3}{16} \cdot e^{-4} + 2e^{-4}$$

$$= -\frac{17}{16} e^{-4} - \frac{3}{16} e^{-4} + \frac{32}{16} e^{-4}$$

$$= \frac{12}{16} e^{-4} =$$