

1.2

$$13.) \quad y = c_1 e^x + c_2 e^{-x}, \quad y(1) = 5, \quad y'(1) = -5$$

$$y' = c_1 e^x - c_2 e^{-x}$$

$$\Rightarrow y(1) = c_1 e^1 + c_2 e^{-1} = 5$$

$$y'(1) = c_1 e^1 - c_2 e^{-1} = -5$$

$$\Rightarrow \frac{c_1}{e} + c_2 e = 5 \quad \triangleright \quad c_2 e = 5$$

$$c_2 = 5e^{-1}$$

$$\textcircled{+} \quad \frac{c_1}{e} - c_2 e = -5$$

$$\frac{2c_1}{e} = 0$$

$$\Rightarrow c_1 = 0$$