

$$u^2 \underline{\underline{y}} - \frac{3}{2} u \underline{y} - \frac{3}{2} y = 0 \Rightarrow \begin{cases} \mu_0 = -12 & {}^u y_0 = 1/\sqrt{u} \\ \mu_1 = 3 & {}^u y_1 = u^3 \end{cases} \Rightarrow {}^u y = \frac{a_0}{\sqrt{u}} + a_1 u^3$$

$$u^2 \underline{\underline{y}} - 3u \underline{y} + 4y = 0 \Rightarrow \begin{cases} \mu_0 = 2 & {}^u y_0 = u^2 \\ \mu_1 = 2 & {}^u y_1 = u^{2u} \end{cases} \Rightarrow {}^u y = a_0 u^2 + a_1 u^{2u} \cancel{\neq}$$

$$u^2 \underline{\underline{y}} - 5u \underline{y} + 9y = 0 \Rightarrow \begin{cases} \mu_0 = 3 & {}^u y_0 = u^3 \\ \mu_1 = 3 & {}^u y_1 = u^{3u} \end{cases} \Rightarrow {}^u y = u^3 \underbrace{a_0 + a_1 u}_{\cancel{\neq}}$$