

$$x^2 \underline{\eta} + 3x \underline{\eta} + \underline{1-2x} \eta = 0 \begin{cases} \gamma_0 = \sum_{n=0}^{\infty} x^n & \beta_0 = \\ \gamma_1 = \sum_{n=0}^{\infty} x^n & \beta_1 = \end{cases}$$

$$\text{Lag } x^2 \underline{\eta} + x \underline{\eta} + \eta = 0 \begin{cases} \gamma_0 = \sum_{n=0}^{\infty} x^n & \beta_0 = \\ \gamma_1 = \sum_{n=0}^{\infty} x^n & \beta_1 = \end{cases}$$

$$\text{Bes } x \underline{\eta} + \underline{\eta} + x \eta = 0 \begin{cases} \gamma_0 = \sum_{m=0}^{\infty} x^m (-1/4)^m & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\leftarrow - \sum_{m=0}^{\infty} x^m H_m (-1/4)^m & \beta_1 = \end{cases}$$

$$x^2 \underline{\eta} - x \underline{1+x} \eta + \eta = 0 \begin{cases} \gamma_0 = x e^x & \beta_0 = \\ \gamma_1 = x e^{x^2} \not\leftarrow - x \sum_{n=0}^{\infty} x^n H_n & \beta_1 = \end{cases}$$

$$4x^2 \underline{\eta} + \underline{1-2x} \eta = 0 \begin{cases} \gamma_0 = x^{1/2} \sum_{n=0}^{\infty} x^n 2^{-n} & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\leftarrow - 2 \sum_{n=0}^{\infty} x^{n+1/2} \frac{H_n}{2^n (n!)^2} & \beta_1 = \end{cases}$$

$$x^2 \underline{\eta} + x \underline{x-3} \eta + 4\eta = 0 \begin{cases} \gamma_0 = x^2 \sum_{n=0}^{\infty} (n+1) (-x)^n & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\leftarrow - x^2 \sum_{n=0}^{\infty} (-x)^n (n+(n+1) H_n) & \beta_1 = \end{cases}$$

$$x^2 \underline{\eta} + 3x \underline{\eta} + \underline{1+4x^2} \eta = 0 \begin{cases} \gamma_0 = x^{-1} \sum_{m=0}^{\infty} -1 x^{2m} & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\leftarrow - x^{-1} \sum_{m=0}^{\infty} H_m -1 x^{2m} & \beta_1 = \end{cases}$$

$$x \underline{1+x} \underline{\eta} + \underline{1+5x} \underline{\eta} + 3\eta = 0 \begin{cases} \gamma_0 = \frac{1}{2} \sum_{n=0}^{\infty} x^n -1 (n+1)(n+2) & \beta_0 = \\ \gamma_1 = \gamma_0^x \not\leftarrow + \frac{1}{2} \sum_{n=0}^{\infty} x^n -1 (2n+3) & \beta_1 = \end{cases}$$

$$x^2 \underline{\eta} + x \underline{x-1} \underline{\eta} + \underline{1-x} \eta = 0 \begin{cases} \gamma_0 = x & \beta_0 = \\ \gamma_1 = x^x \not\leftarrow - \sum_{n=0}^{\infty} x^n \frac{-1}{(n+1)!(n+1)} & \beta_1 = \end{cases}$$

$$x(x-2)\underline{\eta} + 2(x-1)\underline{\eta} - 2\eta = 0 \begin{cases} \gamma_0 = 1-x & \beta_0 = \\ \gamma_1 = \underline{1-x} x^{\cancel{x}} + \frac{5}{2}x - \frac{1}{4} \sum_n^{\mathbb{N}} x^{n+2} \frac{n+3}{2^n(n+1)(n+2)} & \beta_1 = \end{cases}$$

$$x\underline{\eta} + \underline{1-x}\underline{\eta} - \eta = 0 \begin{cases} \gamma_0 = e^x & \beta_0 = \\ \gamma_1 = e^{x^{\cancel{x}}} - \sum_n^{\mathbb{N}} x^{\cancel{x}} H_n & \beta_1 = \end{cases}$$