Quiz #1:
Solve
\[ \sqrt{3 - y^2} e^{4x} \sin 2xdx + 7 \cos xdy = 0 \]

Quiz #2:
Find an annihilator for the expression
\[ 12x^3 e^{-2x} \sin 5x - \frac{1}{\sqrt{\pi}} (e^x + x)^3 + \sin 2x \]

Quiz #3:
Solve using power series
\[ 3y' - xy = 0 \]

Quiz #4:
Solve
\[ \begin{cases} x' = 5x - 4y \\ y' = x + 2z \\ z' = 2y + 5z \end{cases} \]