

You have 20 minutes to complete this quiz. To receive full credit, you must justify your answers.

Name : _____

1. (5 points) Find the general solution to the following system.

$$\begin{aligned}y_1' &= y_1 - 3y_2 \\y_2' &= 2y_1 - 4y_2\end{aligned}$$

2. (5 points) Write down the sine series of the function $f : [-\pi, \pi] \rightarrow \mathbb{R}$ given by $f(x) = x$.