$\mathbf{MATH}\ \mathbf{3430\text{-}02}\ \mathbf{QUIZ}\ \mathbf{4}$

| Name: |
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1. If a, b are distinct real numbers, is the list of functions (in t)

$$\{e^{at}, e^{bt}\}$$

linearly independent? Justify your answer.

2. Write down the general solution of the following ODE:

$$y'' + 7y' + 12y = 0.$$