Read each problem **very carefully** before starting to solve it and do only what is asked. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. [4 points] Find the general solution of the system

$$m{x}' = \left[egin{array}{cc} 3 & -4 \ 1 & -1 \end{array}
ight] m{x}.$$

 $2.\ [6\ \mathrm{points}]$ Find the general solution of the system

$$oldsymbol{x}' = \left[egin{array}{ccc} 1 & 1 & 1 \ 2 & 1 & -1 \ 0 & -1 & 1 \end{array}
ight] oldsymbol{x}.$$