

King Fahd University of Petroleum and Minerals
Math. & Stat. Department
171-Math 202 Quiz (6)

Name	ID	SEC 01
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Q1) Use variation of parameters to solve $X' = \begin{pmatrix} 3 & 2 \\ -2 & -1 \end{pmatrix} X + \begin{pmatrix} 2e^{-t} \\ e^{-t} \end{pmatrix}$.

Q2) Solve the linear system using matrix exponential.

$$X' = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ -2 & -2 & -2 \end{pmatrix} X$$