| Th'm 18.3 <br> Question |  |  |
| :--- | :--- | :---: |
| Lagrangian |  |  |
| Non-degenerate <br> Constraint Qualification <br> (NDCQ) | First Order Condition |  |

$$
\begin{aligned}
& \text { Th'm } 18.4 \\
& \text { Question }
\end{aligned}
$$

Lagrangian

# Non-degenerate Constraint Qualification (NDCQ) 

First Order Condition

| Th'm 18.5 |  |
| :--- | :--- | :--- | :--- |
| Question |  |
| Lagrangian |  |

1. What does it mean for $m$ vectors $v_{1} \ldots v_{m}$ to be linearly independent?
2. What does it mean for an $m * n$ matrix to have maximum rank? ( $\mathrm{m}<\mathrm{n}$ )
