

Handwritten HW 33

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23. Suppose $A = QR$, where Q is $m \times n$ and R is $n \times n$. Show that if the columns of A are linearly independent, then R must be invertible. [*Hint*: Study the equation $R\mathbf{x} = \mathbf{0}$ and use the fact that $A = QR$.]

Solution: