

Some matrix identities

jerviedog

January 5, 2018

$$\begin{pmatrix} b_1 b_1 & \dots & b_1 b_m \\ \vdots & \ddots & \vdots \\ b_m b_1 & \dots & b_m b_m \end{pmatrix} = \begin{pmatrix} b_1 & \dots & 0 \\ \vdots & \ddots & \vdots \\ 0 & \dots & b_m \end{pmatrix} \begin{pmatrix} b_1 & \dots & b_m \\ \vdots & \ddots & \vdots \\ b_1 & \dots & b_m \end{pmatrix} \quad (1)$$