Practice worksheet | Matrices and transformations

# Identity and zero matrices

Name: _____ Date: _____

6 questions | 12 marks

**1.** Find $I_2\begin{pmatrix} 4 & -2 \\ 1 & 5 \end{pmatrix}$. [2 marks]

**2.** State the orders of identities needed on the left and right of a $4 \times 2$ matrix. [2 marks]

**3.** Calculate $\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix} 0_{2 \times 3}$. [2 marks]

**4.** If $A + X = A$ for a $2 \times 3$ matrix $A$, find $X$. [2 marks]

**5.** Let $P = \begin{pmatrix} 0 & 1 \\ 0 & 0 \end{pmatrix}$. Find $P^2$ and say whether $P = 0$. [2 marks]

**6.** Explain why a matrix filled with ones is not $I_2$. [2 marks]