Practice worksheet | Matrices and transformations

Determinants and inverses of 2×2 matrices

Name: _____ Date: _____

6 questions | 12 marks

1. Find $\det\begin{pmatrix} 3 & 2 \\ 1 & 4 \end{pmatrix}$. [2 marks]

2. Find the inverse of $\begin{pmatrix} 1 & 2 \\ 0 & 1 \end{pmatrix}$. [2 marks]

3. Find the inverse of $\begin{pmatrix} 2 & 0 \\ 0 & 5 \end{pmatrix}$. [2 marks]

4. Find t if $\det\begin{pmatrix} t & 1 \\ 2 & 3 \end{pmatrix} = 7$. [2 marks]

5. Find the inverse of $\begin{pmatrix} 0 & -1 \\ 1 & 0 \end{pmatrix}$. [2 marks]

6. Show that $\begin{pmatrix} 2 & 4 \\ 1 & 2 \end{pmatrix}$ has no inverse. [2 marks]