Matrix Algebra
Determinants
More Homework 8

1. Find the determinants of the following matrices.

   a)

$$\begin{pmatrix} 2 & 2 \\ 3 & 7 \end{pmatrix}$$

   Answer: The determinant is 8.

   b)

$$\begin{pmatrix} 2 & 2 & 1 \\ 5 & 4 & 2 \\ 7 & 8 & 7 \end{pmatrix}$$

   Answer: The determinant is -6.

   c)

$$\begin{pmatrix} 1 & 1 & 1 \\ 3 & 4 & 5 \\ 5 & 4 & 3 \end{pmatrix}$$

   Answer: The determinant is 0.

   d)

$$\begin{pmatrix} 1 & 0 & 2 & 3 \\ 2 & 1 & 0 & 4 \\ 1 & 2 & 0 & 3 \\ 1 & 3 & 2 & 9 \end{pmatrix}$$

   Answer: The determinant is 24.

2. Which matrices from problem 1 are invertible?

   Answer: The matrices from parts (a), (b) and (d) are invertible.