

QUIZ October 4, 2013

Clicker Instructions: A = True; B = False;  
C = I don't know; D = No truth value  
correct = 1pt; don't know = 0pt; wrong = -1pt

5. If  $A$  and  $B$  are square of the same size and invertible, then,

$$(AB)^{-1} = A^{-1}B^{-1}.$$

1. An invertible matrix must be square.

2. The inverse of

$$\begin{bmatrix} 1 & -3 \\ 2 & -7 \end{bmatrix}$$

is

$$\begin{bmatrix} 7 & -3 \\ 2 & -1 \end{bmatrix}.$$

3. A  $2 \times 2$  matrix

$$\begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

has determinant  $ad - bc$ , and this is zero if and only if  $A$  has an inverse.

4. The determinants of  $A$  and  $A^T$  are equal.