

QUIZ November 14, 2013

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

1. The characteristic equation of a matrix A is

$$\det(A - \lambda I) = 0.$$

where the variable is λ .

2. The roots of the characteristic equation of A are the eigenvalues of A , counted with multiplicity.
3. An $n \times n$ matrix A always has exactly n real eigenvalues (counted with multiplicity).
4. Similar matrices have the same characteristic polynomial.
5. A matrix A is diagonalizable if and only if it is similar to a diagonal matrix.
6. A matrix A is diagonalizable if and only if it has n eigenvalues.