

QUIZ November 22, 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 eigenvectors and eigenvalues of a matrix A describe the long-term behaviour of a system of differential equations, $\mathbf{x}'(t) = A\mathbf{x}(t)$ as t tends toward infinity.
2. To decouple a system of differential equations is to write it as a system of equations, each one involving only one of the functions we are solving for. Equivalently, to write it as $\mathbf{x}'(t) = A\mathbf{x}(t)$ where A is diagonal.
3. The PageRank algorithm upon which google's search engine is loosely based is an example of the method of finding the steady-state vector of a Markov chain.