

loops:while and repeat avoiding the loops: apply function presenter: georgiana onicescu r:ifelse,where,looping 2/ 17. vectors a one column list of elements (a ... **back row (left to right) - georgia institute of technology** - 1968 back row (left to right): j. w. duley, g. h. weaver, k. d. kirby, r. e. patrick, a. c. krohn, j. m. reynolds, j. w. poston, f. a. dougherty, j. b. f. champlin ... **1.5 elementary matrices - kennesaw state university** - 1.5. elementary matrices 43 remark 106 to actually create the matrix which performs $(r_j + mr_i)$ (r_j) , we do not need to perform the same operation on the identity matrix. **some linear algebra notes - department of mathematics** - some linear algebra notes an $m \times n$ linear system is a system of m linear equations in n unknowns $x_i, i = 1, \dots, n$: $a_{11}x_1 + a_{12}x_2 + \dots + a_{1n}x_n = b_1$ $a_{21}x_1 + a_{22}x_2 + \dots + a_{2n}x_n = b_2$ \dots $a_{m1}x_1 + a_{m2}x_2 + \dots + a_{mn}x_n = b_m$ the coefficients a_{ij} give rise to the rectangular matrix $A = (a_{ij})_{m \times n}$ (the first subscript is the row, the second is the column). this is a matrix with m rows and n columns: $A = \begin{pmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \dots & \dots & \dots & \dots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{pmatrix}$... **week 1 - vectors and matrices** - week 1 - vectors and matrices richard earl * mathematical institute, oxford, ox1 2lb, october 2003 abstract algebra and geometry of vectors. the algebra of matrices. 2×2 matrices. inverses. determinants. simultaneous linear equations. standard transformations of the plane. notation 1 the symbol \mathbb{R}^2 denotes the set of ordered pairs (x,y) - that is the xy -plane. similarly \mathbb{R}^3 denotes the set ... **introduction to r - university of california, berkeley** - introduction to r phil spector statistical computing facility department of statistics university of california, berkeley 1 some basics there are three types of data in r: numeric, character and logical. r supports vectors, matrices, lists and data frames. objects can be assigned values using an equal sign (=) or the special `rmax` then ... **using maple to perform row reduction - whitman people** - using maple to perform row reduction often, it is handy to have a computer algebra system perform row operations so that we don't have to worry about making arithmetic errors. **lecture notes 1: matrix algebra part c: pivoting and ...** - part c: pivoting and matrix decomposition peter j. hammond autumn 2012, revised autumn 2014 university of warwick, ec9a0 maths for economists peter j. hammond 1 of 46 . lecture outline more special matrices triangular matrices unitriangular matrices pivoting to reach the reduced row echelon form example the row echelon form the reduced row echelon form determinants and inverses university of ... **the mathematics of traffic in networks** - the mathematics of traffic in networks frank kelly 1 introduction we are all familiar with congested roads, and perhaps also with congestion in other networks such as the internet, so it is obviously important to have a general understanding of how and why congestion occurs in networks. however, the pattern of the flow of traffic through a network is the consequence of a subtle and complex ... **u,,j, 1:i c;; j, i e assistant chief executive lf1**