Linear Algebra & Image Processing matlab case 1 Elementary Operations

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function B = rowmultiple(A,i,k)
% rowmultiple       Given an mxn matrix A
%                   along with an integer i between 1 and m
%                   and a nonzero scalar k
%                   will generate a matrix B (or Ans when absent)
%                   that is the result of multiplying row i of A by k
B=A;
B(i,:) = k*A(i,:);

function B = rowswap(A,i,j)
% rowswap           Given an mxn matrix A and row numbers i and j
%                   between 1 and m, matrix B is produced (or Ans when absent)
%                   equal to A with rows i and j interchanged
B = A;
B(i,:) = A(j,:);
B(j,:) = A(i,:);

function B = rowcombine(A,i,j,k)
% rowcombine        Given an mxn matrix A,row numbers i,j and scaling factor k
%                   row number j times k is added to row i in matrix B (or Ans when absent)
B=A;
B(i,:) = A(i,:) + k*A(j,:);

function M=makeM
% function makeM creates an Augmented 3x4 test data matrix
M=[3 1 5 7;2 4 -1 0;5 7 3 1];
```