
```

function [A] = HW_5_Sarah_Verderame(n,m)
%HOMEWORK 5, SARAH VERDERAME This is a function that returns an n by m
matrix with spcefic elements.
% The value of each element in the first row is the number of the
column.
% The value of each element in the first column is the number of the
row.
% The rest of the elements each has a value equal to the sum of the
element above it and element to the left.
% The function must return a sensible error if the user does not
input
% exactly two arguments.

n=8; %gave function two input arguments
m=8;

fun = 'HW_5_Sarah_Verderame';
nargin(fun); %checking to make sure there are two arguments

if nargin(fun) ~= 2
    error ('This function does not have two input arguments!') %will
    throw an error if not exactly two arguments

end

for R = 1:n
    for C = 1:m
        if R==1
            A(R,C)=C; %same number as C
        elseif C==1
            A(R,C)=R; %same number as R
        else
            A(R,C)= A(R,C-1)+ A(R-1,C); %The sum of the element above
it and the element to the left
        end
    end
end
end

```

```
ans =
```

Columns 1 through 6

	1	2	3	4	5
6	2	4	7	11	16
22	3	7	14	25	41
63	4	11	25	50	91
154					

	5	16	41	91	182
336	6	22	63	154	336
672	7	29	92	246	582
1254	8	37	129	375	957
2211					

Columns 7 through 8

7	8
29	37
92	129
246	375
582	957
1254	2211
2508	4719
4719	9438

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