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```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% ENGR 133
% Program Description
%sort arrays
%
% Assignment Information
%   Assignment:      Ma2 Task 7
%   Author:          Yolanda, chen3633@purdue.edu
%   Team ID:         LC1-15
%   Contributor:     Name, login@purdue [repeat for each]
%   My contributor(s) helped me:
%       [ ] understand the assignment expectations without
%           telling me how they will approach it.
%       [ ] understand different ways to think about a solution
%           without helping me plan my solution.
%       [ ] think through the meaning of a specific error or
%           bug present in my code without looking at my code.
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

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## INITIALIZATION

```
%set the initial vector
v = [10 5 1 8 -9 0 2 3]
```

v =

10      5      1      8      -9      0      2      3

---

## CALCULATIONS

two for loops that iterates through each elements of v

```
%the built in function sort() helps sort the elements in descending
and
%ascending order
for f = 1:length(v)
    A = sort(v, 'ascend');
end

for f = 1: length(v)
    D = sort(v, 'descend');
end
```

---

## OUTPUTS

```
%display the output using disp
disp('Vector sorted in ascending order:')
disp(A)
disp('Vector sorted in descending order: ')
disp(D)

Vector sorted in ascending order:
    -9     0     1     2     3     5     8    10

Vector sorted in descending order:
    10     8     5     3     2     1     0    -9
```

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## ACADEMIC INTEGRITY STATEMENT

I have not used source code obtained from any other unauthorized source, either modified or unmodified. Neither have I provided access to my code to another. The project I am submitting is my own original work.

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