

CMPSCI4250 Project3 Question2

10/20/19

```
1 | maximum_number([X], X).  
2 | maximum_number([X|Y], X) :- maximum_number(Y, Z), X >= Z.  
3 | maximum_number([X|Y], N) :- maximum_number(Y, N), N > X.
```

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trace, maximum_number([1, 2], X).

Call: maximum_number([1, 2], _3998)

Call: maximum_number([2], _4310)

Exit: maximum_number([2], 2)

Call: 1>=2

Fail: 1>=2

Redo: maximum_number([2], _4314)

Call: maximum_number([], _4310)

Fail: maximum_number([], _4310)

Redo: maximum_number([2], _4314)

Call: maximum_number([], _4310)

Fail: maximum_number([], _4310)

Fail: maximum_number([2], _4310)

Redo: maximum_number([1, 2], _3998)

Call: maximum_number([2], _3998)

Exit: maximum_number([2], 2)

Call: 2>1

Exit: 2>1

Exit: maximum_number([1, 2], 2)

X = 2

Redo: maximum_number([2], _3998)

Call: maximum_number([], _4730)

Fail: maximum_number([], _4730)

Redo: maximum_number([2], _3998)

Call: maximum_number([], _3998)

Fail: maximum_number([], _3998)

Fail: maximum_number([2], _3998)

Fail: maximum_number([1, 2], _3998)

false



maximum_number([-2, -1, 0, 1, 2, 3, 4.999, 5], **X**).

X = 5

false