

SW #3 (To be done in pairs)

Instructions: Pass before 11:59AM today (meaning before noon!). One file should be submitted called answers.pdf containing the answers to 1-3.

Submission Link: <https://www.dropbox.com/request/CFomWOu3gWNMoODHS3X0>

1. Give traces, in the style of the trace given in this section, showing how the keys M I C H A E L C O N S T A N T I N O are sorted with mergesort.

Example:

			a[ ]											
lo	m	hi	0	1	2	3	4	5	6	7	8	9	10	11
			E	A	S	Y	Q	U	E	S	T	I	O	N
0	0	1	A	E	S	Y	Q	U	E	S	T	I	O	N
0	1	2	A	E	S	Y	Q	U	E	S	T	I	O	N
3	3	4	A	E	S	Q	Y	U	E	S	T	I	O	N
3	4	5	A	E	S	Q	U	Y	E	S	T	I	O	N
0	2	5	A	E	Q	S	U	Y	E	S	T	I	O	N
6	6	7	A	E	Q	S	U	Y	E	S	T	I	O	N
6	7	8	A	E	Q	S	U	Y	E	S	T	I	O	N
9	9	10	A	E	Q	S	U	Y	E	S	T	I	O	N
9	10	11	A	E	Q	S	U	Y	E	S	T	I	N	O
6	8	11	A	E	Q	S	U	Y	E	I	N	O	S	T
0	5	11	A	E	E	I	N	O	Q	S	S	T	U	Y
			A	E	E	I	N	O	Q	S	S	T	U	Y

2. Show, in the style of the trace given with `partition()`, how that method partitions the array JUSTINECLYDEPELAGIO.

Example:

		a[ ]											
i	j	0	1	2	3	4	5	6	7	8	9	10	11
		E	A	S	Y	Q	U	E	S	T	I	O	N
2	6	E	A	S	Y	Q	U	E	S	T	I	O	N
2	6	E	A	E	Y	Q	U	S	S	T	I	O	N
	2	E	A	E	Y	Q	U	S	S	T	I	O	N
	2	E	A	E	Y	Q	U	S	S	T	I	O	N

3. Show, in the style of the trace given with `partition()`, how that method partitions the array KENNETHJOELURBANO.