

12. The following method, `swap(A, B)` is written to exchange the values of variables A and B.

```
swap(A, B)
    TEMP = A
    B = TEMP
    A = B
end swap
```

(a) (i) Assume $A = 3$ and $B = 5$.

State the values of A and B after execution of `swap(A, B)`. [1]

(ii) Suggest how the algorithm used in method `swap()` would need to be modified to successfully exchange the values of variables A and B. [2]

Method `swapRows(MAT, K, L)` swaps the elements of two rows (row K and row L) in the two-dimensional array MAT.

For example,

The initial contents of the two-dimensional array MAT

	[0]	[1]	[2]	[3]
[0]	7	1	2	3
[1]	4	0	0	0
[2]	6	0	-3	0
[3]	4	0	0	4
[4]	5	0	-1	0
[5]	5	-6	0	9

`swapRows(MAT, 1, 4)`

→

The contents of the two-dimensional array MAT after execution of method `swapRows(MAT, 1, 4)`

	[0]	[1]	[2]	[3]
[0]	7	1	2	3
[1]	5	0	-1	0
[2]	6	0	-3	0
[3]	4	0	0	4
[4]	4	0	0	0
[5]	5	-6	0	9

(b) Use pseudocode to construct an algorithm for the method `swapRows()`. [4]

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