

Solutions to Quick Check Questions

16

Recursive Algorithms

16.1 Basic Elements of Recursion

No Quick Check Questions.

16.2 Directory Listing

No Quick Check Questions.

16.3 Anagram



Quick Check

1. Determine the output of the following calls without actually running the method:

- a. `anagram("", "DOG");`
- b. `anagram("", "CAFE");`

- a. DOG
 DG0

OGD
ODG
GDO
GOD

b. CAFE
CAEF
CFEA
CFAE
CEAF
CEFA
AFEC
AFCE
AECF
AEFC
ACFE
ACEF
FECA
FEAC
FCAE
FCEA
FAEC
FACE
ECAF
ECFA
EAFC
EACF
EFCA
EFAC

16.4 Towers of Hanoi

No Quick Check Questions.

16.5 Quicksort



Quick Check

1. Partition the following arrays using the partition method:

a.

0	1	2	3	4	5	6	7	8
18	19	5	77	12	14	13	84	45


b.

0	1	2	3	4	5	6	7	8
98	19	15	86	12	44	13	24	45

Answer


a.

0	1	2	3	4	5	6	7	8
13	14	5	12	18	77	19	84	45


 Pivot

b.

0	1	2	3	4	5	6	7	8
45	19	15	86	12	44	13	24	98


 Pivot

16.6 When Not to Use Recursion

No Quick Check Questions.

