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DS-Assign-6

```
Algo toh(n, src, int, dest)
{
  if (n>0)
  {
    toh(n-1, src, dest, int);
    Print("Move nth disc from src to dest");
    toh(n-1, int, src, dest);
  }
}

main()
{
  toh(3, 'A', 'B', 'C'); // n=3
}
```

(x) (y) (z)

Call Stack:

(1)

Step4: Push	B	C	A	0	X
Step3: Push	C	B	A	1	X
Step2: Push	B	C	A	2	X
Step1: Push	C	B	A	3	Z

Step5: Pop

Step 6: Move 1st disc from A to C

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(2)

Step 7: Push

C	A	B	0	y
C	B	A	1	X
B	C	A	2	X
C	B	A	3	Z

Step 8: Pop
Step 9: Pop

Step 10: Move 2nd Disc from A to B.

(3) Step 12: Push

A	B	C	0	X
B	A	C	1	y
B	C	A	2	X
C	B	A	3	Z

Step 11: Push

Step 13: Pop

Step 14: Move 1st Disc from C to B

(4)

Step 15: Push

B	C	A	0	y
B	A	C	1	y
B	C	A	2	X
C	B	A	3	Z

Step 16: pop
Step 17: pop
Step 18: pop

Step 19: Move 3rd Disc from A to C

(5)

Step 22: Push

C	A	B	0	X
A	C	B	1	X
C	A	B	2	y
C	B	A	3	Z

Step 21: Push
Step 20: Push

Step 23: Pop

Step 24: Move 1st Disc from B to A.

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(6)

Step 25: Push

A	B	C	0	y
A	C	B	1	x
C	A	B	2	y
C	B	A	3	z

Step 26: Pop
Step 27: Pop

Step 28: Move 2nd Disc from B to C.

(7)

Step 30: Push
Step 29: Push

B	C	A	0	x
C	B	A	1	y
C	A	B	2	y
C	B	A	3	z

Step 31: Pop

Step 32: Move 1st Disc from A to C

(8)

Step 33: Push

C	A	B	0	y
C	B	A	1	y
C	A	B	2	y
C	B	A	3	z

Step 34: Pop
Step 35: Pop
Step 36: Pop
Step 37: Pop.