

Q. 1)

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• Dry Run

Variables		Conditions	statements	Incre/decre
i	j	$i \leq 4$	$j \leq 4$ S.O. print("* ") S.O.P()	if it's
1	1	$1 \leq 4$	$1 \leq 4$ * _	2
	2		$2 \leq 4$ * _	3
	3		$3 \leq 4$ * _	4
	4		$4 \leq 4$ * _	5
	5		$5 \leq 4$ X	✓ 2
2	1	$2 \leq 4$	$1 \leq 4$ * _	2
	2		$2 \leq 4$ * _	3
	3		$3 \leq 4$ * _	4
	4		$4 \leq 4$ * _	5
	5		$5 \leq 4$ X	✓ 3
3	1	$3 \leq 4$	$1 \leq 4$ * _	2
	2		$2 \leq 4$ * _	3
	3		$3 \leq 4$ * _	4
	4		$4 \leq 4$ * _	5
	5		$5 \leq 4$ X	✓ 4

$i \quad j \quad i \leq 4 \quad j \leq 4 \quad 6.0 \cdot \text{print}("*") \quad 5.0 \cdot P() \quad j++ \quad i++$

4	1	$4 \leq 4$	$1 \leq 4$	*	2
	2		$2 \leq 4$	*	3
	3		$3 \leq 4$	*	4
	4		$4 \leq 4$	*	5
	5		$5 \leq 4$ X		✓ print 5

5 print $5 \leq 4$ X

4.4.10.10 () q = 0 ("4" + "10.10") print q $p = 4$ $p = 5$ i j print

0	0	1	$p = 1$	$p = 2$	2	4	1
1	1	2	$p = 2$		3		2
2	2	3	$p = 3$		4		3
3	3	4	$p = 4$		5		4
4			X $p = 5$		6		5

5	5	6	$p = 6$	$p = 7$	7	8	6
6	6	7	$p = 7$		8		7
7	7	8	$p = 8$		9		8
8	8	9	$p = 9$		10		9
9			X $p = 10$		11		10

10	10	11	$p = 11$	$p = 12$	12	13	11
11	11	12	$p = 12$		13		12
12	12	13	$p = 13$		14		13
13	13	14	$p = 14$		15		14
14			X $p = 15$		16		15

Q.2

1	2	3	4				
5	6	7	8				
9	10	11	12				
13	14	15	16				
17	18	19	20				

Dry Run

Variables conditions statements Print / decre

num	i	j	$i \leq 4$	$j \leq 4$	S.o. Print (num + "1")	S.o. p()	num	j++
1	1	1	$1 \leq 4$	$1 \leq 4$	1		2	2
2		2		$2 \leq 4$	2		3	3
3		3		$3 \leq 4$	3		4	4
4		4		$4 \leq 4$	4		5	5
5		5		$5 \leq 4$ X		✓		2
5	2	1	$2 \leq 4$	$1 \leq 4$	5		5	2
6		2		$2 \leq 4$	6		7	3
7		3		$3 \leq 4$	7		8	4
8		4		$4 \leq 4$	8		9	5
9		5		$5 \leq 4$ X				3
9	3	1	$3 \leq 4$	$1 \leq 4$	9		10	2
10		2		$2 \leq 4$	10		11	3
11		3		$3 \leq 4$	11		12	4
12		4		$4 \leq 4$	12		13	5
13		5		$5 \leq 4$ X				4

num p j p<=4 j<=4 s.o.print(num+"|t") s.o.p(1) num j+t|t+

13	4	1	4<=4	1<=4	13	14	2
14		2		2<=4	14	15	3
15		3		3<=4	15	16	4
16		4		4<=4	16	17	5
17		5		5<=4 X			5

17 5 5<=4 X

Q.3)

7 7 7 7
7 7 7 7
7 7 7 7
7 7 7 7

Dry Run

Variable		condition	statements	Pncre/decre	
i	j				
		$i <= 4$	$j <= 4$	$s.o.print("7"); s.o.p()$	$j++$ $i++$
1	1	$1 <= 4$	$1 <= 4$	7	2
	2		$2 <= 4$	7	3
	3		$3 <= 4$	7	4
	4		$4 <= 4$	7	5
	5		$5 <= 4$ X	✓	2
2	1	$2 <= 4$	$1 <= 4$	7	2
	2		$2 <= 4$	7	3
	3		$3 <= 4$	7	4
	4		$4 <= 4$	7	5
	5		$5 <= 4$ X	✓	3
3	1	$3 <= 4$	$1 <= 4$	7	2
	2		$2 <= 4$	7	3
	3		$3 <= 4$	7	4
	4		$4 <= 4$	7	5
	5		$5 <= 4$ X	✓	4

i j P <= 4 j <= 4 5.0.print("7 ") 5.0.p(0 j++ P++

4	1	4 <= 4	1 <= 4	7	2
	2		2 <= 4	7	3
	3		3 <= 4	7	4
	4		4 <= 4	7	5
	5		5 <= 4 X		5

5 5 <= 4 X

Q.4

1 4 9
16 25 36
49 64 81

• Dry Run

num	Variable		Conditions		Statements	Print/decre	
	i	j	$i \leq 3$	$j \leq 3$	S.O. Print (num * num) S.O. P(i) num++ j++		
1	1	1	$1 \leq 3$	$1 \leq 3$	1	2	2
2		2		$2 \leq 3$	4	3	3
3		3		$3 \leq 3$	9	4	4
4		4		$4 \leq 3$ X		✓	2
4	2	1	$2 \leq 3$	$1 \leq 3$	16	5	2
5		2		$2 \leq 3$	25	6	3
6		3		$3 \leq 3$	36	7	4
7		4		$4 \leq 3$ X		✓	3
7	3	1	$3 \leq 3$	$1 \leq 3$	49	8	2
8		2		$2 \leq 3$	64	9	3
9		3		$3 \leq 3$	81	10	4
10		4		$4 \leq 3$ X		✓	4
10	4		$4 \leq 3$ X				

4.5 0 3 8
 15 24 35
 48 63 80

• DRY RUN

variable conditions statements incre/decre

num i j $i \leq 3$ $j \leq 3$ s.o.print(num * num) s.o.p() num++ j++ i++

1	1	1	$1 \leq 3$	$1 \leq 3$	0	2	2
2		2	$2 \leq 3$		3	3	3
3		3	$3 \leq 3$		8	4	4
4		4	$4 \leq 3$ X				2

4	2	1	$2 \leq 3$	$1 \leq 3$	15	5	2
5		2	$2 \leq 3$		24	6	3
6		3	$3 \leq 3$		35	7	4
7		4	$4 \leq 3$ X				3

7	3	1	$3 \leq 3$	$1 \leq 3$	48	8	2
8		2	$2 \leq 3$		63	9	3
9		3	$3 \leq 3$		80	10	4
10		4	$4 \leq 3$ X				4

10	4		$4 \leq 3$ X				
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