

Q.1 $a = 3$ // from user.

i	$i \leq 10$	$\text{print}(a \times i)$
1	✓	3
2	✓	6
3	✓	9
4	✓	12
5	✓	15
6	✓	18
7	✓	21
8	✓	24
9	✓	27
10	✓	30
11	X	

Q.2 $i = 20$

Q.2	$i \leq 40$	$i \% 2 \neq 0$	$\text{print}(i)$
20	✓	X	-
21	✓	✓	21
22	✓	X	-
23	✓	✓	23
24	✓	X	-
25	✓	✓	25
26	✓	X	-
27	✓	✓	27
28	✓	X	-
29	✓	✓	29
30	✓	X	-
31	✓	✓	31
32	✓	X	-
33	✓	✓	33
34	✓	X	-
35	✓	✓	35

37	✓	✓	37
38	✓	X	38
39	✓	✓	39
40	✓	X	-
41	X	-	-

Q.3

i	$i \leq 70$	$i + 2 = 0$	Print
50	✓	✓	50 -
51	✓	X	
52	✓	✓	52 -
53	✓	X	
54	✓	✓	54 -
55	✓	X	
56	✓	✓	56 -
57	✓	X	
58	✓	✓	58 -
59	✓	X	
60	✓	✓	60 -
61	✓	X	
62	✓	✓	62 -
63	✓	X	
64	✓	✓	64 -
65	✓	X	
66	✓	✓	66 -
67	✓	X	
68	✓	✓	68 -
69	✓	X	
70	✓	✓	70 -
71	X		

Q.4	$a = 50$	$a/2 = 25$	
i	$i \leq 25$	$a \cdot i = 0$	Print(i)
1	✓	✓	1_
2	✓	✓	2_
3	✓	X	
4	✓	X	
5	✓	✓	5_
6	✓	X	
7	✓	X	
8	✓	X	
9	✓	X	
10	✓	✓	10_
11	✓	X	
12	✓	X	
13	✓	X	
14	✓	X	
15	✓	X	
16	✓	X	
17	✓	X	
18	✓	X	
19	✓	X	
20	✓	X	
21	✓	X	
22	✓	X	
23	✓	X	
24	✓	X	
25	✓	✓	25_
26	X		

out of loop

A = 65
a = 97

Rainbow

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DATE: / /

0.5

A = 65

a = 97

A	a	A <= 90	a <= 122	print
65	97	✓	✓	a = A
66	98	✓	✓	b = B
67	99	✓	✓	c = C
68	100	✓	✓	d = D
69	101	✓	✓	e = E
70	102	✓	✓	f = F
71	103	✓	✓	g = G
72	104	✓	✓	h = H
73	105	✓	✓	i = I
74	106	✓	✓	j = J
75	107	✓	✓	k = K
76	108	✓	✓	l = L
77	109	✓	✓	m = M
78	110	✓	✓	n = N
79	111	✓	✓	o = O
80	112	✓	✓	p = P
81	113	✓	✓	q = Q
82	114	✓	✓	r = R
83	115	✓	✓	s = S
84	116	✓	✓	t = T
85	117	✓	✓	u = U
86	118	✓	✓	v = V
87	119	✓	✓	w = W
88	120	✓	✓	x = X
89	121	✓	✓	y = Y
90	122	✓	✓	z = Z

X

Q.7

$s = 6$	$e = 60$	$i = i + 5$
$i = s$	$i \leq e$	Print(i)
6	✓	6 -
12	✓	12 -
18	✓	18 -
24	✓	24 -
30	✓	30 -
36	✓	36 -
42	✓	42 -
48	✓	48 -
54	✓	54 -
60	✓	60 -
66	✗	

Q.8

$ch2 = 121$	$ch1 = 106$
$i = ch2$	$i > ch1$
	Print("i.c", i);
121	✓
120	✓
119	✓
118	✓
117	✓
116	✓
115	✓
114	✓
113	✓
112	✓
111	✓
110	✓
109	✓
108	✓
107	✓
106	✓

Q.9	$i = a = 30$	$b = 15$	$i = i - 2$
a.1	$i \geq b$	print i	
30	✓	30	—
28	✓	28	—
26	✓	26	—
24	✓	24	—
22	✓	22	—
20	✓	20	—
18	✓	18	—
16	✓	16	—
14	X		

Q.10 will be same as Q.4

Q.11

i	$i \leq b$	$i \cdot 4 \leq 20$	Print i
30	✓	x	
31	✓	x	
32	✓	✓	32 -
33	✓	x	
34	✓	x	
35	✓	x	
36	✓	✓	36 -
37	✓	x	
38	✓	x	
39	✓	x	
40	✓	✓	40 -
41	✓	x	
42	✓	x	
43	✓	x	
44	✓	✓ x	44 -
45	✓	x	
46	✓	x	
47	✓	x	
48	✓	✓	48 -
49	✓	x	
50	✓	x	
51	✓	x	
52	✓	✓	52 -
53	✓	x	
54	✓	x	
55	✓	x	
56	✓	✓	56 -
57	✓	x	
58	✓	x	
59	✓	x	
60	✓	✓	60 -

0.12	$i = a = 10$	$b = 20$	$mul = 1$	$sum = 0$
	$i < b^{20}$	sum	mul	
9	✓	10	x	
10	✓	x	11	
11	✓	22	x	
12	✓	x	143	
13	✓	36	x	
14	✓	x	2145	
15	✓	52	x	
16	✓	x	36465	
17	✓	70	x	
18	✓	x	692835	
19	✓	90	x	
20	✓			

final sum = 90
 final mul = 692835.

Q13		a=1	b=50	DATE: / /
i	iL=b	i+2i=0	Print cube /out	
1	✓	✓	1	
2	✓	x	27	
3	✓	✓	125	
4	✓	x	343	
5	✓	✓	729	
6	✓	x	1331	
7	✓	✓	2197	
8	✓	x	3375	
9	✓	✓	4913	
10	✓	x	6859	
11	✓	✓	9261	
12	✓	x	12167	
13	✓	✓	15625	
14	✓	x	19683	
15	✓	✓	24389	
16	✓	x	1	
17	✓	✓	1	
18	✓	x	1	
19	✓	✓	91125	
20	✓	x	103823	
21	✓	✓	117649	
22	✓	x		
23	✓	✓	12467	
✓	✓			
1	✓			
1	✓			
47	✓	✓		
48	✓	x		
49	✓	✓		
50	✓	x		

Q.14 A=65 a=97

A A L = 90 Print

65 ✓ A

66 ✓ B

67 ✓ C

68 ✓ D

69 ✓ E

70 ✓ F

71 ✓ G

72 ✓ H

73 ✓ I

74 ✓ J

75 ✓ K

76 ✓ L

77 ✓ M

78 ✓ N

79 ✓ O

80 ✓ P

81 ✓ Q

82 ✓ R

83 ✓ S

84 ✓ T

85 ✓ U

86 ✓ V

87 ✓ W

88 ✓ X

89 ✓ Y

90 ✓ Z

91 ✗

i = 1 j = 10

j i <= 10 j >= 1 print i+j

10 ✓ ✓ 11

9 ✓ ✓ 11

8 ✓ ✓ 11

7 ✓ ✓ 11

6 ✓ ✓ 11

5 ✓ ✓ 11

4 ✓ ✓ 11

3 ✓ ✓ 11

2 ✓ ✓ 11

1 ✓ ✓ 11

0 ✗ ✗

✓