



Determine what rule the function machine is using.

1)

In	Out
31	35
34	38
44	48
46	50
47	51

2)

Input	Output
21	15
24	18
35	29
40	34
54	48

3)

In	Out
17	13
27	23
29	25
34	30
40	36

4)

Input	Output
20	10
26	16
38	28
52	42
59	49

5)

In	Out
39	24
45	30
46	31
53	38
64	49

6)

Input	Output
17	30
19	32
30	43
41	54
47	60

7)

In	Out
12	17
35	40
37	42
42	47
45	50

8)

In	Out
17	30
24	37
35	48
38	51
42	55

9)

In	Out
34	24
44	34
46	36
51	41
57	47

10)

In	Out
29	14
33	18
34	19
36	21
37	22

11)

Input	Output
28	43
31	46
33	48
35	50
42	57

12)

In	Out
15	23
21	29
26	34
28	36
34	42

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____



Determine what rule the function machine is using.

1)

In	Out
31	35
34	38
44	48
46	50
47	51

2)

Input	Output
21	15
24	18
35	29
40	34
54	48

3)

In	Out
17	13
27	23
29	25
34	30
40	36

4)

Input	Output
20	10
26	16
38	28
52	42
59	49

5)

In	Out
39	24
45	30
46	31
53	38
64	49

6)

Input	Output
17	30
19	32
30	43
41	54
47	60

7)

In	Out
12	17
35	40
37	42
42	47
45	50

8)

In	Out
17	30
24	37
35	48
38	51
42	55

9)

In	Out
34	24
44	34
46	36
51	41
57	47

10)

In	Out
29	14
33	18
34	19
36	21
37	22

11)

Input	Output
28	43
31	46
33	48
35	50
42	57

12)

In	Out
15	23
21	29
26	34
28	36
34	42

Answers

1. **Add 4**

2. **Sub 6**

3. **Sub 4**

4. **Sub 10**

5. **Sub 15**

6. **Add 13**

7. **Add 5**

8. **Add 13**

9. **Sub 10**

10. **Sub 15**

11. **Add 15**

12. **Add 8**



Determine what rule the function machine is using.

1)

In	Out
31	35
34	38
44	48
46	50
47	51

- Add 3
- Sub 4
- Add 4
- Add 5

2)

In	Out
21	15
24	18
35	29
40	34
54	48

- Add 6
- Sub 3
- Sub 9
- Sub 6

3)

In	Out
17	13
27	23
29	25
34	30
40	36

- Add 7
- Add 4
- Sub 1
- Sub 4

4)

In	Out
20	10
26	16
38	28
52	42
59	49

- Sub 12
- Sub 10
- Sub 7
- Add 12

5)

In	Out
39	24
45	30
46	31
53	38
64	49

- Sub 14
- Add 18
- Sub 18
- Sub 15

6)

In	Out
17	30
19	32
30	43
41	54
47	60

- Add 13
- Sub 15
- Add 15
- Add 12

7)

In	Out
12	17
35	40
37	42
42	47
45	50

- Add 5
- Sub 8
- Add 4
- Sub 5

8)

In	Out
17	30
24	37
35	48
38	51
42	55

- Add 13
- Add 15
- Sub 15
- Sub 13

9)

In	Out
34	24
44	34
46	36
51	41
57	47

- Sub 10
- Sub 8
- Add 12
- Sub 12

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____



Determine what rule the function machine is using.

1)

In	Out
22	10
24	12
31	19
46	34
57	45

2)

In	Out
10	16
19	25
25	31
26	32
35	41

3)

In	Out
18	13
31	26
34	29
40	35
50	45

4)

In	Out
25	11
27	13
45	31
47	33
61	47

5)

Input	Output
16	12
17	13
20	16
26	22
40	36

6)

In	Out
18	25
20	27
23	30
36	43
40	47

7)

Input	Output
25	13
26	14
27	15
44	32
60	48

8)

Input	Output
23	14
46	37
49	40
51	42
55	46

9)

Input	Output
19	14
24	19
39	34
47	42
54	49

10)

In	Out
10	18
14	22
27	35
30	38
42	50

11)

Input	Output
23	28
27	32
36	41
40	45
42	47

12)

Input	Output
24	15
35	26
37	28
42	33
58	49

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____



Determine what rule the function machine is using.

1)

In	Out
22	10
24	12
31	19
46	34
57	45

2)

In	Out
10	16
19	25
25	31
26	32
35	41

3)

In	Out
18	13
31	26
34	29
40	35
50	45

4)

In	Out
25	11
27	13
45	31
47	33
61	47

5)

Input	Output
16	12
17	13
20	16
26	22
40	36

6)

In	Out
18	25
20	27
23	30
36	43
40	47

7)

Input	Output
25	13
26	14
27	15
44	32
60	48

8)

Input	Output
23	14
46	37
49	40
51	42
55	46

9)

Input	Output
19	14
24	19
39	34
47	42
54	49

10)

In	Out
10	18
14	22
27	35
30	38
42	50

11)

Input	Output
23	28
27	32
36	41
40	45
42	47

12)

Input	Output
24	15
35	26
37	28
42	33
58	49

Answers

1. **Sub 12**

2. **Add 6**

3. **Sub 5**

4. **Sub 14**

5. **Sub 4**

6. **Add 7**

7. **Sub 12**

8. **Sub 9**

9. **Sub 5**

10. **Add 8**

11. **Add 5**

12. **Sub 9**



Determine what rule the function machine is using.

1)

In	Out
22	10
24	12
31	19
46	34
57	45

- Sub 13
- Sub 12
- Add 12
- Sub 11

2)

In	Out
10	16
19	25
25	31
26	32
35	41

- Add 6
- Sub 6
- Add 4
- Add 7

3)

In	Out
18	13
31	26
34	29
40	35
50	45

- Add 5
- Sub 2
- Sub 5
- Sub 7

4)

In	Out
25	11
27	13
45	31
47	33
61	47

- Add 14
- Sub 12
- Sub 14
- Add 16

5)

In	Out
16	12
17	13
20	16
26	22
40	36

- Sub 4
- Add 6
- Add 4
- Sub 6

6)

In	Out
18	25
20	27
23	30
36	43
40	47

- Add 7
- Add 8
- Sub 7
- Sub 8

7)

In	Out
25	13
26	14
27	15
44	32
60	48

- Sub 12
- Add 12
- Sub 9
- Add 15

8)

In	Out
23	14
46	37
49	40
51	42
55	46

- Sub 8
- Add 10
- Add 9
- Sub 9

9)

In	Out
19	14
24	19
39	34
47	42
54	49

- Sub 2
- Sub 5
- Add 5
- Add 8

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____



Determine what rule the function machine is using.

1)

Input	Output
13	24
15	26
31	42
35	46
40	51

2)

Input	Output
13	28
15	30
27	42
34	49
44	59

3)

Input	Output
12	26
28	42
39	53
41	55
50	64

4)

In	Out
25	29
29	33
43	47
47	51
48	52

5)

Input	Output
17	10
38	31
52	45
53	46
54	47

6)

Input	Output
17	11
28	22
35	29
40	34
53	47

7)

Input	Output
10	15
15	20
34	39
48	53
49	54

8)

Input	Output
32	19
34	21
47	34
58	45
63	50

9)

In	Out
24	14
26	16
33	23
41	31
59	49

10)

Input	Output
16	28
18	30
26	38
31	43
46	58

11)

In	Out
20	14
25	19
32	26
48	42
56	50

12)

In	Out
16	29
28	41
29	42
31	44
42	55

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____



Determine what rule the function machine is using.

1)

Input	Output
13	24
15	26
31	42
35	46
40	51

2)

Input	Output
13	28
15	30
27	42
34	49
44	59

3)

Input	Output
12	26
28	42
39	53
41	55
50	64

4)

In	Out
25	29
29	33
43	47
47	51
48	52

5)

Input	Output
17	10
38	31
52	45
53	46
54	47

6)

Input	Output
17	11
28	22
35	29
40	34
53	47

7)

Input	Output
10	15
15	20
34	39
48	53
49	54

8)

Input	Output
32	19
34	21
47	34
58	45
63	50

9)

In	Out
24	14
26	16
33	23
41	31
59	49

10)

Input	Output
16	28
18	30
26	38
31	43
46	58

11)

In	Out
20	14
25	19
32	26
48	42
56	50

12)

In	Out
16	29
28	41
29	42
31	44
42	55

Answers

1. Add 11

2. Add 15

3. Add 14

4. Add 4

5. Sub 7

6. Sub 6

7. Add 5

8. Sub 13

9. Sub 10

10. Add 12

11. Sub 6

12. Add 13



Determine what rule the function machine is using.

1)

In	Out
13	24
15	26
31	42
35	46
40	51

- Add 8
- Add 14
- Sub 14
- Add 11

2)

In	Out
13	28
15	30
27	42
34	49
44	59

- Add 18
- Add 14
- Sub 15
- Add 15

3)

In	Out
12	26
28	42
39	53
41	55
50	64

- Add 14
- Add 12
- Sub 16
- Add 16

4)

In	Out
25	29
29	33
43	47
47	51
48	52

- Sub 7
- Sub 4
- Add 3
- Add 4

5)

In	Out
17	10
38	31
52	45
53	46
54	47

- Add 7
- Sub 7
- Add 9
- Sub 4

6)

In	Out
17	11
28	22
35	29
40	34
53	47

- Add 9
- Sub 3
- Sub 6
- Sub 9

7)

In	Out
10	15
15	20
34	39
48	53
49	54

- Sub 7
- Sub 5
- Add 5
- Add 4

8)

In	Out
32	19
34	21
47	34
58	45
63	50

- Add 15
- Add 13
- Sub 12
- Sub 13

9)

In	Out
24	14
26	16
33	23
41	31
59	49

- Add 13
- Add 10
- Sub 9
- Sub 10

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____



Determine what rule the function machine is using.

1)

Input	Output
20	14
25	19
34	28
35	29
41	35

2)

Input	Output
12	17
19	24
24	29
28	33
36	41

3)

In	Out
10	24
25	39
35	49
43	57
50	64

4)

In	Out
10	21
19	30
42	53
44	55
49	60

5)

In	Out
33	22
34	23
49	38
54	43
58	47

6)

Input	Output
31	16
38	23
40	25
47	32
56	41

7)

Input	Output
11	26
24	39
36	51
40	55
50	65

8)

Input	Output
15	25
30	40
36	46
42	52
44	54

9)

Input	Output
17	27
25	35
34	44
36	46
39	49

10)

In	Out
24	39
29	44
33	48
39	54
41	56

11)

In	Out
26	38
34	46
42	54
45	57
47	59

12)

Input	Output
12	26
18	32
35	49
39	53
44	58

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____



Determine what rule the function machine is using.

1)

Input	Output
20	14
25	19
34	28
35	29
41	35

2)

Input	Output
12	17
19	24
24	29
28	33
36	41

3)

In	Out
10	24
25	39
35	49
43	57
50	64

4)

In	Out
10	21
19	30
42	53
44	55
49	60

5)

In	Out
33	22
34	23
49	38
54	43
58	47

6)

Input	Output
31	16
38	23
40	25
47	32
56	41

7)

Input	Output
11	26
24	39
36	51
40	55
50	65

8)

Input	Output
15	25
30	40
36	46
42	52
44	54

9)

Input	Output
17	27
25	35
34	44
36	46
39	49

10)

In	Out
24	39
29	44
33	48
39	54
41	56

11)

In	Out
26	38
34	46
42	54
45	57
47	59

12)

Input	Output
12	26
18	32
35	49
39	53
44	58

Answers

1. Sub 6

2. Add 5

3. Add 14

4. Add 11

5. Sub 11

6. Sub 15

7. Add 15

8. Add 10

9. Add 10

10. Add 15

11. Add 12

12. Add 14



Determine what rule the function machine is using.

1)

In	Out
20	14
25	19
34	28
35	29
41	35

- Add 9
- Sub 6
- Sub 9
- Sub 4

2)

In	Out
12	17
19	24
24	29
28	33
36	41

- Sub 5
- Add 8
- Add 3
- Add 5

3)

In	Out
10	24
25	39
35	49
43	57
50	64

- Sub 14
- Add 14
- Sub 15
- Add 13

4)

In	Out
10	21
19	30
42	53
44	55
49	60

- Sub 11
- Add 12
- Add 11
- Add 9

5)

In	Out
33	22
34	23
49	38
54	43
58	47

- Add 12
- Add 11
- Sub 11
- Sub 8

6)

In	Out
31	16
38	23
40	25
47	32
56	41

- Sub 14
- Sub 17
- Sub 15
- Add 15

7)

In	Out
11	26
24	39
36	51
40	55
50	65

- Sub 15
- Add 15
- Sub 18
- Add 18

8)

In	Out
15	25
30	40
36	46
42	52
44	54

- Sub 11
- Add 10
- Add 11
- Add 9

9)

In	Out
17	27
25	35
34	44
36	46
39	49

- Sub 10
- Add 10
- Add 11
- Add 8

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____



Determine what rule the function machine is using.

1)

In	Out
27	33
30	36
33	39
41	47
42	48

2)

In	Out
41	26
46	31
50	35
60	45
61	46

3)

In	Out
18	32
20	34
23	37
28	42
40	54

4)

Input	Output
21	25
22	26
25	29
29	33
32	36

5)

In	Out
27	18
36	27
39	30
41	32
50	41

6)

Input	Output
16	23
17	24
18	25
27	34
42	49

7)

In	Out
20	27
29	36
30	37
39	46
45	52

8)

Input	Output
11	25
16	30
18	32
27	41
35	49

9)

Input	Output
10	20
12	22
15	25
26	36
49	59

10)

In	Out
40	29
51	40
52	41
54	43
59	48

11)

In	Out
19	28
27	36
29	38
39	48
48	57

12)

Input	Output
10	14
11	15
24	28
30	34
41	45

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____



Determine what rule the function machine is using.

1)

In	Out
27	33
30	36
33	39
41	47
42	48

2)

In	Out
41	26
46	31
50	35
60	45
61	46

3)

In	Out
18	32
20	34
23	37
28	42
40	54

4)

Input	Output
21	25
22	26
25	29
29	33
32	36

5)

In	Out
27	18
36	27
39	30
41	32
50	41

6)

Input	Output
16	23
17	24
18	25
27	34
42	49

7)

In	Out
20	27
29	36
30	37
39	46
45	52

8)

Input	Output
11	25
16	30
18	32
27	41
35	49

9)

Input	Output
10	20
12	22
15	25
26	36
49	59

10)

In	Out
40	29
51	40
52	41
54	43
59	48

11)

In	Out
19	28
27	36
29	38
39	48
48	57

12)

Input	Output
10	14
11	15
24	28
30	34
41	45

Answers

1. Add 6

2. Sub 15

3. Add 14

4. Add 4

5. Sub 9

6. Add 7

7. Add 7

8. Add 14

9. Add 10

10. Sub 11

11. Add 9

12. Add 4



Determine what rule the function machine is using.

1)

In	Out
27	33
30	36
33	39
41	47
42	48

- Add 4
- Sub 6
- Add 9
- Add 6

2)

In	Out
41	26
46	31
50	35
60	45
61	46

- Sub 14
- Add 17
- Sub 17
- Sub 15

3)

In	Out
18	32
20	34
23	37
28	42
40	54

- Add 14
- Add 16
- Sub 16
- Add 12

4)

In	Out
21	25
22	26
25	29
29	33
32	36

- Add 5
- Add 2
- Add 4
- Sub 4

5)

In	Out
27	18
36	27
39	30
41	32
50	41

- Add 10
- Sub 7
- Sub 9
- Sub 10

6)

In	Out
16	23
17	24
18	25
27	34
42	49

- Sub 7
- Add 5
- Add 7
- Sub 9

7)

In	Out
20	27
29	36
30	37
39	46
45	52

- Sub 7
- Add 7
- Add 10
- Add 4

8)

In	Out
11	25
16	30
18	32
27	41
35	49

- Add 17
- Sub 14
- Sub 17
- Add 14

9)

In	Out
10	20
12	22
15	25
26	36
49	59

- Add 10
- Add 9
- Sub 13
- Add 13

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____



Determine what rule the function machine is using.

1)

Input	Output
28	20
32	24
40	32
52	44
53	45

2)

Input	Output
12	20
19	27
21	29
35	43
45	53

3)

In	Out
10	16
15	21
26	32
33	39
46	52

4)

In	Out
25	15
26	16
36	26
39	29
51	41

5)

In	Out
42	31
49	38
53	42
55	44
60	49

6)

Input	Output
27	31
37	41
38	42
41	45
45	49

7)

In	Out
15	22
18	25
27	34
33	40
50	57

8)

Input	Output
25	11
41	27
49	35
60	46
61	47

9)

Input	Output
26	15
27	16
39	28
56	45
58	47

10)

In	Out
30	15
38	23
42	27
47	32
50	35

11)

In	Out
14	27
20	33
27	40
41	54
50	63

12)

Input	Output
10	15
13	18
14	19
21	26
24	29

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____



Determine what rule the function machine is using.

1)

Input	Output
28	20
32	24
40	32
52	44
53	45

2)

Input	Output
12	20
19	27
21	29
35	43
45	53

3)

In	Out
10	16
15	21
26	32
33	39
46	52

4)

In	Out
25	15
26	16
36	26
39	29
51	41

5)

In	Out
42	31
49	38
53	42
55	44
60	49

6)

Input	Output
27	31
37	41
38	42
41	45
45	49

7)

In	Out
15	22
18	25
27	34
33	40
50	57

8)

Input	Output
25	11
41	27
49	35
60	46
61	47

9)

Input	Output
26	15
27	16
39	28
56	45
58	47

10)

In	Out
30	15
38	23
42	27
47	32
50	35

11)

In	Out
14	27
20	33
27	40
41	54
50	63

12)

Input	Output
10	15
13	18
14	19
21	26
24	29

Answers

1. Sub 8

2. Add 8

3. Add 6

4. Sub 10

5. Sub 11

6. Add 4

7. Add 7

8. Sub 14

9. Sub 11

10. Sub 15

11. Add 13

12. Add 5



Determine what rule the function machine is using.

1)

In	Out
28	20
32	24
40	32
52	44
53	45

- Sub 7
- Sub 8
- Add 9
- Add 8

2)

In	Out
12	20
19	27
21	29
35	43
45	53

- Sub 11
- Add 8
- Add 7
- Add 11

3)

In	Out
10	16
15	21
26	32
33	39
46	52

- Add 3
- Sub 6
- Add 6
- Sub 7

4)

In	Out
25	15
26	16
36	26
39	29
51	41

- Add 10
- Sub 10
- Sub 13
- Add 13

5)

In	Out
42	31
49	38
53	42
55	44
60	49

- Sub 11
- Add 13
- Sub 13
- Sub 9

6)

In	Out
27	31
37	41
38	42
41	45
45	49

- Sub 4
- Add 1
- Add 4
- Add 5

7)

In	Out
15	22
18	25
27	34
33	40
50	57

- Add 7
- Sub 7
- Add 9
- Sub 9

8)

In	Out
25	11
41	27
49	35
60	46
61	47

- Sub 14
- Sub 12
- Sub 16
- Add 16

9)

In	Out
26	15
27	16
39	28
56	45
58	47

- Add 11
- Sub 12
- Sub 11
- Add 12

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____



Determine what rule the function machine is using.

1)

In	Out
12	18
25	31
38	44
42	48
50	56

2)

In	Out
11	24
12	25
21	34
36	49
37	50

3)

In	Out
12	22
13	23
22	32
32	42
38	48

4)

Input	Output
36	22
38	24
43	29
54	40
61	47

5)

In	Out
34	48
36	50
37	51
40	54
49	63

6)

Input	Output
14	28
34	48
41	55
42	56
49	63

7)

Input	Output
12	26
30	44
36	50
41	55
45	59

8)

Input	Output
30	21
33	24
34	25
43	34
50	41

9)

Input	Output
11	26
29	44
31	46
41	56
50	65

10)

Input	Output
29	24
30	25
31	26
35	30
41	36

11)

Input	Output
21	12
25	16
36	27
45	36
46	37

12)

Input	Output
24	12
31	19
36	24
38	26
57	45

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____



Determine what rule the function machine is using.

1)

In	Out
12	18
25	31
38	44
42	48
50	56

2)

In	Out
11	24
12	25
21	34
36	49
37	50

3)

In	Out
12	22
13	23
22	32
32	42
38	48

4)

Input	Output
36	22
38	24
43	29
54	40
61	47

5)

In	Out
34	48
36	50
37	51
40	54
49	63

6)

Input	Output
14	28
34	48
41	55
42	56
49	63

7)

Input	Output
12	26
30	44
36	50
41	55
45	59

8)

Input	Output
30	21
33	24
34	25
43	34
50	41

9)

Input	Output
11	26
29	44
31	46
41	56
50	65

10)

Input	Output
29	24
30	25
31	26
35	30
41	36

11)

Input	Output
21	12
25	16
36	27
45	36
46	37

12)

Input	Output
24	12
31	19
36	24
38	26
57	45

Answers

1. **Add 6**

2. **Add 13**

3. **Add 10**

4. **Sub 14**

5. **Add 14**

6. **Add 14**

7. **Add 14**

8. **Sub 9**

9. **Add 15**

10. **Sub 5**

11. **Sub 9**

12. **Sub 12**



Determine what rule the function machine is using.

1)

In	Out
12	18
25	31
38	44
42	48
50	56

- Sub 6
- Sub 9
- Add 9
- Add 6

2)

In	Out
11	24
12	25
21	34
36	49
37	50

- Sub 13
- Add 13
- Add 11
- Add 16

3)

In	Out
12	22
13	23
22	32
32	42
38	48

- Sub 11
- Add 10
- Sub 10
- Add 8

4)

In	Out
36	22
38	24
43	29
54	40
61	47

- Sub 13
- Add 14
- Sub 14
- Sub 17

5)

In	Out
34	48
36	50
37	51
40	54
49	63

- Sub 14
- Sub 15
- Add 13
- Add 14

6)

In	Out
14	28
34	48
41	55
42	56
49	63

- Add 11
- Add 14
- Sub 14
- Sub 15

7)

In	Out
12	26
30	44
36	50
41	55
45	59

- Add 17
- Add 11
- Add 14
- Sub 14

8)

In	Out
30	21
33	24
34	25
43	34
50	41

- Sub 9
- Sub 12
- Sub 7
- Add 9

9)

In	Out
11	26
29	44
31	46
41	56
50	65

- Add 18
- Sub 15
- Add 15
- Add 14

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____



Determine what rule the function machine is using.

1)

In	Out
33	18
35	20
39	24
50	35
55	40

2)

In	Out
10	18
16	24
25	33
32	40
42	50

3)

Input	Output
34	19
51	36
55	40
60	45
61	46

4)

Input	Output
14	28
19	33
28	42
36	50
46	60

5)

Input	Output
20	15
26	21
39	34
47	42
52	47

6)

Input	Output
26	12
38	24
42	28
46	32
61	47

7)

In	Out
29	25
38	34
45	41
46	42
52	48

8)

Input	Output
13	25
23	35
26	38
29	41
50	62

9)

In	Out
20	14
22	16
43	37
49	43
53	47

10)

In	Out
20	30
25	35
26	36
30	40
36	46

11)

In	Out
19	14
36	31
39	34
43	38
46	41

12)

Input	Output
12	17
14	19
25	30
27	32
28	33

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____



Determine what rule the function machine is using.

1)

In	Out
33	18
35	20
39	24
50	35
55	40

2)

In	Out
10	18
16	24
25	33
32	40
42	50

3)

Input	Output
34	19
51	36
55	40
60	45
61	46

4)

Input	Output
14	28
19	33
28	42
36	50
46	60

5)

Input	Output
20	15
26	21
39	34
47	42
52	47

6)

Input	Output
26	12
38	24
42	28
46	32
61	47

7)

In	Out
29	25
38	34
45	41
46	42
52	48

8)

Input	Output
13	25
23	35
26	38
29	41
50	62

9)

In	Out
20	14
22	16
43	37
49	43
53	47

10)

In	Out
20	30
25	35
26	36
30	40
36	46

11)

In	Out
19	14
36	31
39	34
43	38
46	41

12)

Input	Output
12	17
14	19
25	30
27	32
28	33

Answers

1. Sub 15

2. Add 8

3. Sub 15

4. Add 14

5. Sub 5

6. Sub 14

7. Sub 4

8. Add 12

9. Sub 6

10. Add 10

11. Sub 5

12. Add 5



Determine what rule the function machine is using.

1)

In	Out
33	18
35	20
39	24
50	35
55	40

- Sub 15
- Add 16
- Add 15
- Sub 14

2)

In	Out
10	18
16	24
25	33
32	40
42	50

- Sub 10
- Add 8
- Add 6
- Sub 8

3)

In	Out
34	19
51	36
55	40
60	45
61	46

- Add 15
- Sub 16
- Add 16
- Sub 15

4)

In	Out
14	28
19	33
28	42
36	50
46	60

- Sub 14
- Add 12
- Add 14
- Sub 17

5)

In	Out
20	15
26	21
39	34
47	42
52	47

- Sub 3
- Sub 5
- Add 8
- Sub 8

6)

In	Out
26	12
38	24
42	28
46	32
61	47

- Add 14
- Add 16
- Sub 13
- Sub 14

7)

In	Out
29	25
38	34
45	41
46	42
52	48

- Add 4
- Add 5
- Sub 5
- Sub 4

8)

In	Out
13	25
23	35
26	38
29	41
50	62

- Sub 15
- Add 15
- Sub 12
- Add 12

9)

In	Out
20	14
22	16
43	37
49	43
53	47

- Sub 4
- Add 8
- Sub 6
- Sub 8

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____



Determine what rule the function machine is using.

1)

Input	Output
17	11
20	14
31	25
35	29
39	33

2)

In	Out
18	13
39	34
40	35
46	41
48	43

3)

Input	Output
14	10
24	20
25	21
34	30
44	40

4)

In	Out
20	11
34	25
36	27
37	28
52	43

5)

In	Out
24	10
30	16
33	19
36	22
63	49

6)

In	Out
11	23
22	34
32	44
36	48
43	55

7)

Input	Output
15	21
17	23
18	24
37	43
46	52

8)

In	Out
16	25
24	33
32	41
45	54
47	56

9)

In	Out
27	13
29	15
46	32
60	46
64	50

10)

Input	Output
24	13
32	21
35	24
37	26
56	45

11)

In	Out
19	10
30	21
45	36
49	40
50	41

12)

In	Out
13	25
19	31
23	35
25	37
45	57

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____



Determine what rule the function machine is using.

1)

Input	Output
17	11
20	14
31	25
35	29
39	33

2)

In	Out
18	13
39	34
40	35
46	41
48	43

3)

Input	Output
14	10
24	20
25	21
34	30
44	40

4)

In	Out
20	11
34	25
36	27
37	28
52	43

5)

In	Out
24	10
30	16
33	19
36	22
63	49

6)

In	Out
11	23
22	34
32	44
36	48
43	55

7)

Input	Output
15	21
17	23
18	24
37	43
46	52

8)

In	Out
16	25
24	33
32	41
45	54
47	56

9)

In	Out
27	13
29	15
46	32
60	46
64	50

10)

Input	Output
24	13
32	21
35	24
37	26
56	45

11)

In	Out
19	10
30	21
45	36
49	40
50	41

12)

In	Out
13	25
19	31
23	35
25	37
45	57

Answers

1. Sub 6

2. Sub 5

3. Sub 4

4. Sub 9

5. Sub 14

6. Add 12

7. Add 6

8. Add 9

9. Sub 14

10. Sub 11

11. Sub 9

12. Add 12



Determine what rule the function machine is using.

1)

In	Out
17	11
20	14
31	25
35	29
39	33

- Add 9
- Sub 9
- Sub 5
- Sub 6

2)

In	Out
18	13
39	34
40	35
46	41
48	43

- Add 6
- Sub 5
- Add 5
- Sub 6

3)

In	Out
14	10
24	20
25	21
34	30
44	40

- Add 5
- Add 4
- Sub 4
- Sub 5

4)

In	Out
20	11
34	25
36	27
37	28
52	43

- Add 12
- Add 9
- Sub 12
- Sub 9

5)

In	Out
24	10
30	16
33	19
36	22
63	49

- Sub 15
- Sub 11
- Sub 14
- Add 15

6)

In	Out
11	23
22	34
32	44
36	48
43	55

- Sub 12
- Add 9
- Sub 15
- Add 12

7)

In	Out
15	21
17	23
18	24
37	43
46	52

- Add 6
- Add 9
- Sub 6
- Sub 9

8)

In	Out
16	25
24	33
32	41
45	54
47	56

- Add 7
- Sub 11
- Add 9
- Add 11

9)

In	Out
27	13
29	15
46	32
60	46
64	50

- Add 14
- Sub 13
- Sub 14
- Add 16

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____



Determine what rule the function machine is using.

1)

Input	Output
33	19
35	21
49	35
57	43
62	48

2)

Input	Output
20	26
28	34
32	38
38	44
44	50

3)

In	Out
15	20
17	22
30	35
37	42
50	55

4)

Input	Output
23	29
26	32
38	44
41	47
43	49

5)

Input	Output
20	30
24	34
31	41
33	43
48	58

6)

Input	Output
11	25
14	28
33	47
37	51
40	54

7)

In	Out
11	24
30	43
39	52
40	53
45	58

8)

In	Out
19	34
35	50
36	51
43	58
47	62

9)

In	Out
30	22
32	24
38	30
43	35
45	37

10)

Input	Output
18	29
28	39
35	46
38	49
47	58

11)

In	Out
21	13
24	16
34	26
46	38
54	46

12)

In	Out
20	15
41	36
43	38
45	40
52	47

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____



Determine what rule the function machine is using.

1)

Input	Output
33	19
35	21
49	35
57	43
62	48

2)

Input	Output
20	26
28	34
32	38
38	44
44	50

3)

In	Out
15	20
17	22
30	35
37	42
50	55

4)

Input	Output
23	29
26	32
38	44
41	47
43	49

5)

Input	Output
20	30
24	34
31	41
33	43
48	58

6)

Input	Output
11	25
14	28
33	47
37	51
40	54

7)

In	Out
11	24
30	43
39	52
40	53
45	58

8)

In	Out
19	34
35	50
36	51
43	58
47	62

9)

In	Out
30	22
32	24
38	30
43	35
45	37

10)

Input	Output
18	29
28	39
35	46
38	49
47	58

11)

In	Out
21	13
24	16
34	26
46	38
54	46

12)

In	Out
20	15
41	36
43	38
45	40
52	47

Answers

1. **Sub 14**

2. **Add 6**

3. **Add 5**

4. **Add 6**

5. **Add 10**

6. **Add 14**

7. **Add 13**

8. **Add 15**

9. **Sub 8**

10. **Add 11**

11. **Sub 8**

12. **Sub 5**



Determine what rule the function machine is using.

1)

In	Out
33	19
35	21
49	35
57	43
62	48

- Sub 14
- Sub 13
- Sub 15
- Add 15

2)

In	Out
20	26
28	34
32	38
38	44
44	50

- Add 6
- Sub 6
- Add 9
- Add 4

3)

In	Out
15	20
17	22
30	35
37	42
50	55

- Add 5
- Add 6
- Sub 6
- Sub 5

4)

In	Out
23	29
26	32
38	44
41	47
43	49

- Add 9
- Sub 6
- Sub 9
- Add 6

5)

In	Out
20	30
24	34
31	41
33	43
48	58

- Add 13
- Sub 10
- Add 7
- Add 10

6)

In	Out
11	25
14	28
33	47
37	51
40	54

- Add 16
- Sub 14
- Add 14
- Sub 16

7)

In	Out
11	24
30	43
39	52
40	53
45	58

- Add 12
- Add 16
- Sub 16
- Add 13

8)

In	Out
19	34
35	50
36	51
43	58
47	62

- Sub 18
- Add 15
- Add 12
- Add 18

9)

In	Out
30	22
32	24
38	30
43	35
45	37

- Sub 6
- Add 9
- Add 8
- Sub 8

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____