



Write an equation to show the relationship between the input and the output.

1)

Input (p)	Output (q)
45	9
15	3
20	4
10	2
25	5

2)

Input (p)	Output (q)
48	6
80	10
40	5
56	7
72	9

3)

Input (r)	Output (s)
51	55
74	78
1	5
71	75
5	9

4)

Input (j)	Output (k)
90	96
39	45
53	59
37	43
54	60

5)

Input (n)	Output (o)
75	66
31	22
67	58
54	45
57	48

6)

Input (x)	Output (y)
10	2
14	6
53	45
18	10
56	48

7)

In (s)	12	24	20	32
Out (t)	3	6	5	8

8)

In (o)	7	9	5	3
Out (p)	70	90	50	30

9)

In (u)	9	7	8	5
Out (v)	81	63	72	45

10)

In (l)	22	72	11	71
Out (m)	29	79	18	78

11)

In (c)	4	57	93	9
Out (d)	23	76	112	28

12)

In (p)	2	5	8	3
Out (q)	14	35	56	21

Answers

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



Write an equation to show the relationship between the input and the output.

1)

Input (p)	Output (q)
45	9
15	3
20	4
10	2
25	5

$p \div 5 = q$

2)

Input (p)	Output (q)
48	6
80	10
40	5
56	7
72	9

$p \div 8 = q$

3)

Input (r)	Output (s)
51	55
74	78
1	5
71	75
5	9

$r + 4 = s$

4)

Input (j)	Output (k)
90	96
39	45
53	59
37	43
54	60

$j + 6 = k$

5)

Input (n)	Output (o)
75	66
31	22
67	58
54	45
57	48

$n - 9 = o$

6)

Input (x)	Output (y)
10	2
14	6
53	45
18	10
56	48

$x - 8 = y$

7)

In (s)	12	24	20	32
Out (t)	3	6	5	8

$s \div 4 = t$

8)

In (o)	7	9	5	3
Out (p)	70	90	50	30

$o \times 10 = p$

9)

In (u)	9	7	8	5
Out (v)	81	63	72	45

$u \times 9 = v$

10)

In (l)	22	72	11	71
Out (m)	29	79	18	78

$l + 7 = m$

11)

In (c)	4	57	93	9
Out (d)	23	76	112	28

$c + 19 = d$

12)

In (p)	2	5	8	3
Out (q)	14	35	56	21

$p \times 7 = q$

Answers

1. $p \div 5 = q$

2. $p \div 8 = q$

3. $r + 4 = s$

4. $j + 6 = k$

5. $n - 9 = o$

6. $x - 8 = y$

7. $s \div 4 = t$

8. $o \times 10 = p$

9. $u \times 9 = v$

10. $l + 7 = m$

11. $c + 19 = d$

12. $p \times 7 = q$



Write an equation to show the relationship between the input and the output.

1)

Input (n)	Output (o)
50	65
30	45
6	21
78	93
17	32

2)

Input (c)	Output (d)
8	26
76	94
11	29
33	51
31	49

3)

Input (e)	Output (f)
10	5
4	2
12	6
20	10
16	8

4)

Input (n)	Output (o)
5	20
7	28
6	24
2	8
4	16

5)

Input (m)	Output (n)
45	9
30	6
35	7
15	3
50	10

6)

Input (j)	Output (k)
72	9
64	8
24	3
40	5
32	4

7)

In (t)	110	20	71	17
Out (u)	95	5	56	2

8)

In (h)	2	6	9	8
Out (i)	14	42	63	56

9)

In (r)	20	98	32	87
Out (s)	8	86	20	75

10)

In (i)	6	2	7	9
Out (j)	36	12	42	54

11)

In (w)	63	68	61	14
Out (x)	56	61	54	7

12)

In (s)	88	97	112	63
Out (t)	74	83	98	49

Answers

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



Write an equation to show the relationship between the input and the output.

1)

Input (n)	Output (o)
50	65
30	45
6	21
78	93
17	32

$n + 15 = o$

2)

Input (c)	Output (d)
8	26
76	94
11	29
33	51
31	49

$c + 18 = d$

3)

Input (e)	Output (f)
10	5
4	2
12	6
20	10
16	8

$e \div 2 = f$

4)

Input (n)	Output (o)
5	20
7	28
6	24
2	8
4	16

$n \times 4 = o$

5)

Input (m)	Output (n)
45	9
30	6
35	7
15	3
50	10

$m \div 5 = n$

6)

Input (j)	Output (k)
72	9
64	8
24	3
40	5
32	4

$j \div 8 = k$

7)

In (t)	110	20	71	17
Out (u)	95	5	56	2

$t - 15 = u$

8)

In (h)	2	6	9	8
Out (i)	14	42	63	56

$h \times 7 = i$

9)

In (r)	20	98	32	87
Out (s)	8	86	20	75

$r - 12 = s$

10)

In (i)	6	2	7	9
Out (j)	36	12	42	54

$i \times 6 = j$

11)

In (w)	63	68	61	14
Out (x)	56	61	54	7

$w - 7 = x$

12)

In (s)	88	97	112	63
Out (t)	74	83	98	49

$s - 14 = t$

Answers

1. $n + 15 = o$

2. $c + 18 = d$

3. $e \div 2 = f$

4. $n \times 4 = o$

5. $m \div 5 = n$

6. $j \div 8 = k$

7. $t - 15 = u$

8. $h \times 7 = i$

9. $r - 12 = s$

10. $i \times 6 = j$

11. $w - 7 = x$

12. $s - 14 = t$



Determine the number that correctly fills in the blank in the function machine.

1)

Input	Output
6	3
18	9
4	2
10	5
	7

2)

Input	Output
48	67
6	25
45	64
62	81
67	

3)

Input	Output
53	54
14	15
7	8
51	
31	32

4)

Input	Output
10	50
4	20
3	15
9	
2	10

5)

Input	Output
	49
97	79
77	59
102	84
85	67

6)

Input	Output
105	
75	59
63	47
82	66
91	75

7)

In	4		7	3	9
Out	40	50	70	30	90

8)

In	60		24	48	42
Out	10	3	4	8	7

9)

In	3	2	9	7	10
Out	24	16	72	56	

10)

In	9	43		55	81
Out	22	56	67	68	94

11)

In	60	65	33		83
Out	44	49	17	96	67

12)

In	9	10		4	5
Out	27	30	21	12	15

Answers

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



Determine the number that correctly fills in the blank in the function machine.

1)

Input	Output
6	3
18	9
4	2
10	5
14	7

Rule: Div 2

2)

Input	Output
48	67
6	25
45	64
62	81
67	86

Rule: Add 19

3)

Input	Output
53	54
14	15
7	8
51	52
31	32

Rule: Add 1

4)

Input	Output
10	50
4	20
3	15
9	45
2	10

Rule: Mult 5

5)

Input	Output
67	49
97	79
77	59
102	84
85	67

Rule: Sub 18

6)

Input	Output
105	89
75	59
63	47
82	66
91	75

Rule: Sub 16

7)

In	4	5	7	3	9
Out	40	50	70	30	90

Rule: Mult 10

8)

In	60	18	24	48	42
Out	10	3	4	8	7

Rule: Div 6

9)

In	3	2	9	7	10
Out	24	16	72	56	80

Rule: Mult 8

10)

In	9	43	54	55	81
Out	22	56	67	68	94

Rule: Add 13

11)

In	60	65	33	112	83
Out	44	49	17	96	67

Rule: Sub 16

12)

In	9	10	7	4	5
Out	27	30	21	12	15

Rule: Mult 3

Answers

1. 14

2. 86

3. 52

4. 45

5. 67

6. 89

7. 5

8. 18

9. 80

10. 54

11. 112

12. 7



Determine the number that correctly fills in the blank in the function machine.

1)

Input	Output
102	
26	11
49	34
101	86
37	22

2)

Input	Output
12	3
28	7
20	5
32	8
8	

3)

Input	Output
7	35
	10
3	15
6	30
10	50

4)

Input	Output
8	
7	42
6	36
4	24
10	60

5)

Input	Output
92	97
89	94
84	89
90	95
	54

6)

Input	Output
2	6
3	9
8	24
	12
6	18

7)

In	48	37	7	95	70
Out	54		13	101	76

8)

In	64	75	9	100	39
Out	56	67	1	92	

9)

In	35	65	83	67	57
Out	36	66	84		58

10)

In	81	22	48		51
Out	63	4	30	87	33

11)

In		4	2	5	3
Out	80	40	20	50	30

12)

In	96	77	68		65
Out	93	74	65	2	62

Answers

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



Determine the number that correctly fills in the blank in the function machine.

1)

Input	Output
102	87
26	11
49	34
101	86
37	22

Rule: Sub 15

2)

Input	Output
12	3
28	7
20	5
32	8
8	2

Rule: Div 4

3)

Input	Output
7	35
2	10
3	15
6	30
10	50

Rule: Mult 5

4)

Input	Output
8	48
7	42
6	36
4	24
10	60

Rule: Mult 6

5)

Input	Output
92	97
89	94
84	89
90	95
49	54

Rule: Add 5

6)

Input	Output
2	6
3	9
8	24
4	12
6	18

Rule: Mult 3

7)

In	48	37	7	95	70
Out	54	43	13	101	76

Rule: Add 6

8)

In	64	75	9	100	39
Out	56	67	1	92	31

Rule: Sub 8

9)

In	35	65	83	67	57
Out	36	66	84	68	58

Rule: Add 1

10)

In	81	22	48	105	51
Out	63	4	30	87	33

Rule: Sub 18

11)

In	8	4	2	5	3
Out	80	40	20	50	30

Rule: Mult 10

12)

In	96	77	68	5	65
Out	93	74	65	2	62

Rule: Sub 3

Answers

1. 87

2. 2

3. 2

4. 48

5. 49

6. 4

7. 43

8. 31

9. 68

10. 105

11. 8

12. 5