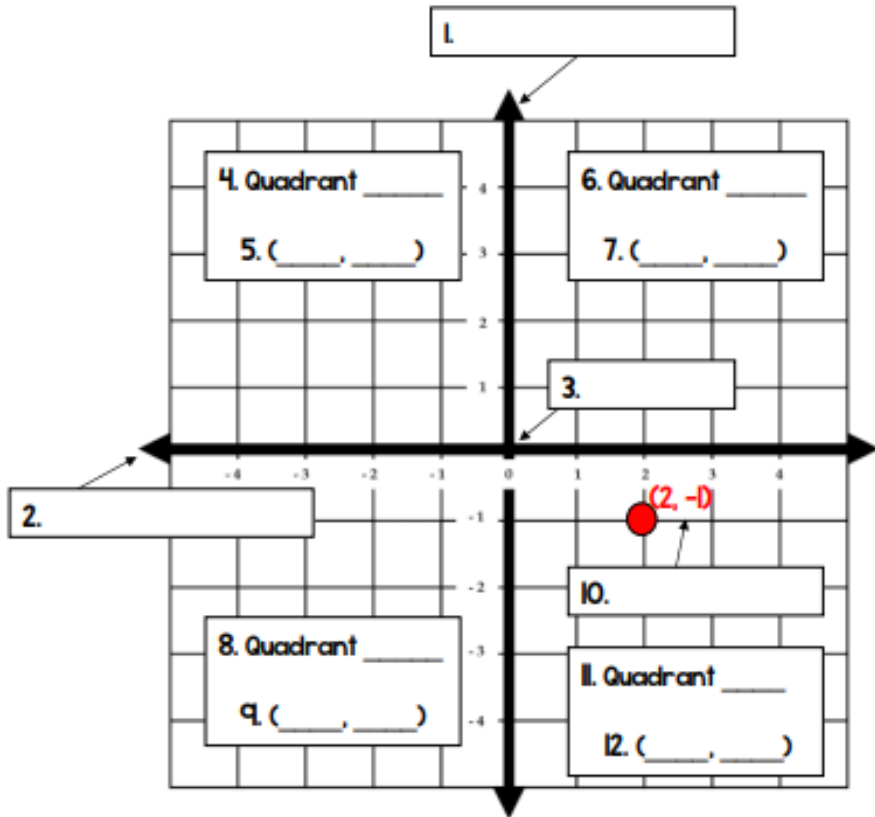


Essential Outcome	Lesson/Video	Practice Questions
<ul style="list-style-type: none"> Identify the components of the cartesian plain Graph coordinates from a table of value 	<ul style="list-style-type: none"> https://www.youtube.com/watch?v=IN2KPDUBKI8 (this video may be enough for plotting points on a coordinate grid but we have included more videos below just in case) 	<p>Identify Components of the Cartesian Plane</p> <p>Graphing a Table of Values</p>
<ul style="list-style-type: none"> Plot coordinate points on a coordinate grid 	<ul style="list-style-type: none"> https://www.khanacademy.org/math/cc-fifth-grade-math/imp-geometry-3/imp-intro-to-the-coordinate-plane/v/introduction-to-the-coordinate-plane?modal=1 https://www.khanacademy.org/math/algebra-basics/alg-basics-graphing-lines-and-slope/alg-basics-coordinate-plane/v/quadrants-of-coordinate-plane?modal=1 https://www.khanacademy.org/math/algebra-basics/alg-basics-graphing-lines-and-slope/alg-basics-coordinate-plane/v/graphing-points-and-naming-quadrants-exercise?modal=1 	<p>Ordered Pairs on a Coordinate Grid (1st Quadrant)</p> <p>Plotting Points on a Coordinate Grid (4 Quadrants)</p>
<ul style="list-style-type: none"> Identify a linear relationship from a table of values or graph. 	<p>https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-linear-equations-functions/linear-nonlinear-functions-tut/v/recognizing-linear-functions</p> <p>https://www.youtube.com/watch?v=WzjeLsXarpM</p> <p>http://www.mathblaster.com/coolmath/articles/linear-vs-nonlinear-functions</p> <p>Note Page: https://studylib.net/doc/6679783/linear-vs-non-linear-examples</p>	<p>Linear or Non-Linear?</p>
<ul style="list-style-type: none"> Complete a table of values using input/output rule 	<p>https://www.youtube.com/watch?v=FY7I_VYvLSk</p>	<p>Three different input/output worksheets</p>

Identify the Components of the Cartesian Plane:

Name _____ Date _____

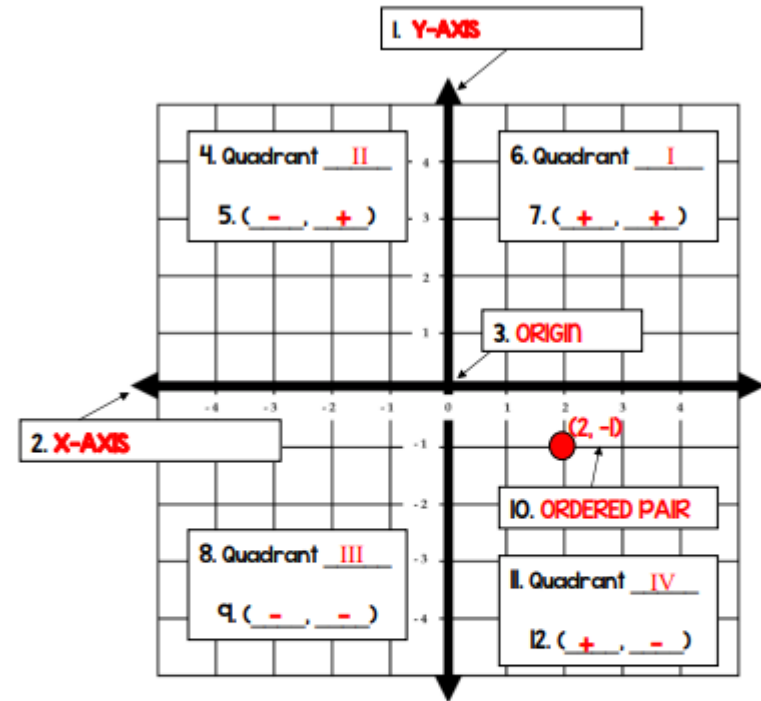
Fill in the blank spaces with the appropriate term.



State the quadrant of the ordered pairs .

- | | | | |
|------------|-------|-------------|-------|
| 13. (3,3) | _____ | 17. (5,-8) | _____ |
| 14. (-4,3) | _____ | 18. (-4,-1) | _____ |
| 15. (1,6) | _____ | 19. (-2,3) | _____ |
| 16. (7,-2) | _____ | 20. (-3,-3) | _____ |

Fill in the blank spaces with the appropriate term.



State the quadrant of the ordered pairs .

- | | | | |
|------------|-------|-------------|-------|
| 13. (3,3) | _____ | 17. (5,-8) | _____ |
| 14. (-4,3) | _____ | 18. (-4,-1) | _____ |
| 15. (1,6) | _____ | 19. (-2,3) | _____ |
| 16. (7,-2) | _____ | 20. (-3,-3) | _____ |

Graphing A Table of Values

https://www.worksheetworks.com/pdf/_3d/zxls/WorksheetWorks_Graphing_Practice_1.pdf



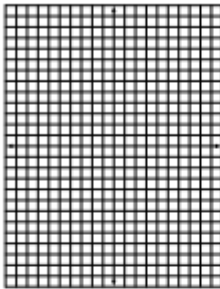
Function Tables

Name: _____ Date: _____

Plot the points and connect them with a line using the function tables.

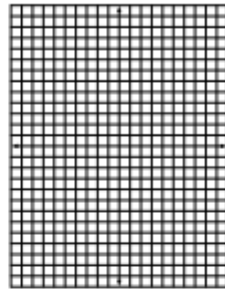
(1)

x	y
-10	-5
-4	1
0	5
4	9



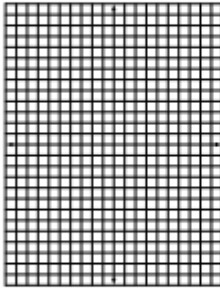
(2)

x	y
-2	8
-1	4
1	-4
2	-8



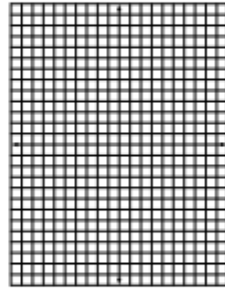
(3)

x	y
-2	12
0	4
3	-8
4	-12



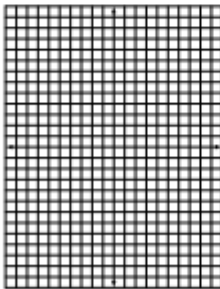
(4)

x	y
-6	-3
-4	-1
-3	0
8	11



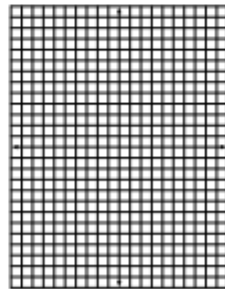
(5)

x	y
-7	-7
1	1
6	6
9	9



(6)

x	y
-3	-12
-1	-4
1	4
3	12



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Graphing Practice

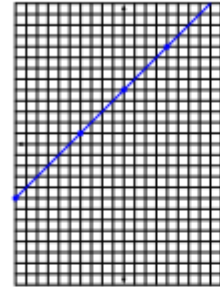
Function Tables

ANSWER KEY

Plot the points and connect them with a line using the function tables.

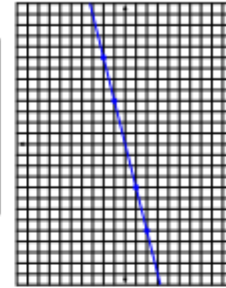
(1)

x	y
-10	-5
-4	1
0	5
4	9



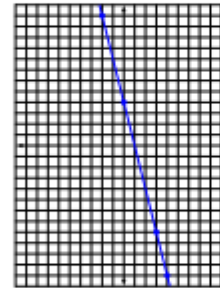
(2)

x	y
-2	8
-1	4
1	-4
2	-8



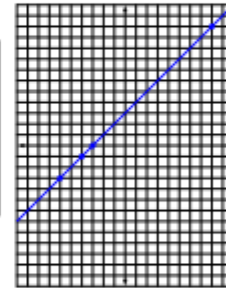
(3)

x	y
-2	12
0	4
3	-8
4	-12



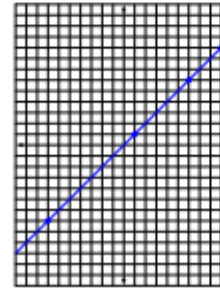
(4)

x	y
-6	-3
-4	-1
-3	0
8	11



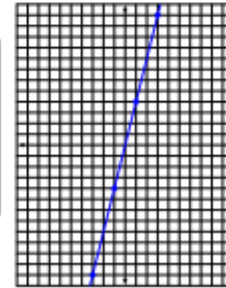
(5)

x	y
-7	-7
1	1
6	6
9	9



(6)

x	y
-3	-12
-1	-4
1	4
3	12



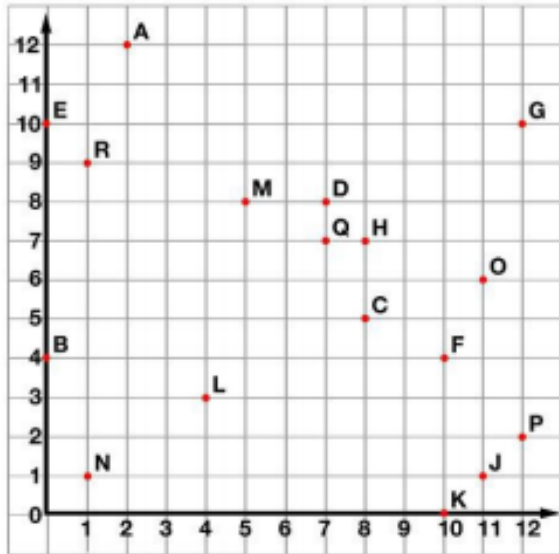
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Plot Points on a Coordinate Grid Practice:

https://www.superteacherworksheets.com/geometry/coordinate-grid2_TZDWB.pdf?up=1466611200

Name: _____

Ordered Pairs



Tell what point is located at each ordered pair.

- | | | |
|------------------|-----------------|-----------------|
| 1. (5,8) _____ | 2. (12,2) _____ | 3. (8,7) _____ |
| 4. (12,10) _____ | 5. (7,7) _____ | 6. (0,10) _____ |

Write the ordered pair for each given point.

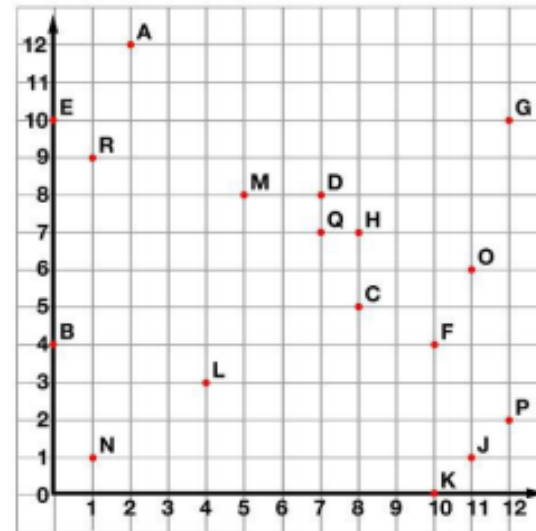
- | | | |
|-------------|-------------|-------------|
| 7. N _____ | 8. L _____ | 9. J _____ |
| 10. A _____ | 11. B _____ | 12. E _____ |

Plot the following points on the coordinate grid.

- | | | |
|--------------|-------------|--------------|
| 13. S (6,11) | 14. T (3,5) | 15. U (9,12) |
|--------------|-------------|--------------|

ANSWER KEY

Ordered Pairs



Tell what point is located at each ordered pair.

- | | | |
|---------------------|--------------------|--------------------|
| 1. (5,8) M | 2. (12,2) P | 3. (8,7) H |
| 4. (12,10) G | 5. (7,7) Q | 6. (0,10) E |

Write the ordered pair for each given point.

- | | | |
|---------------------|--------------------|---------------------|
| 7. N (1,1) | 8. L (4,3) | 9. J (11,1) |
| 10. A (2,12) | 11. B (0,4) | 12. E (0,10) |

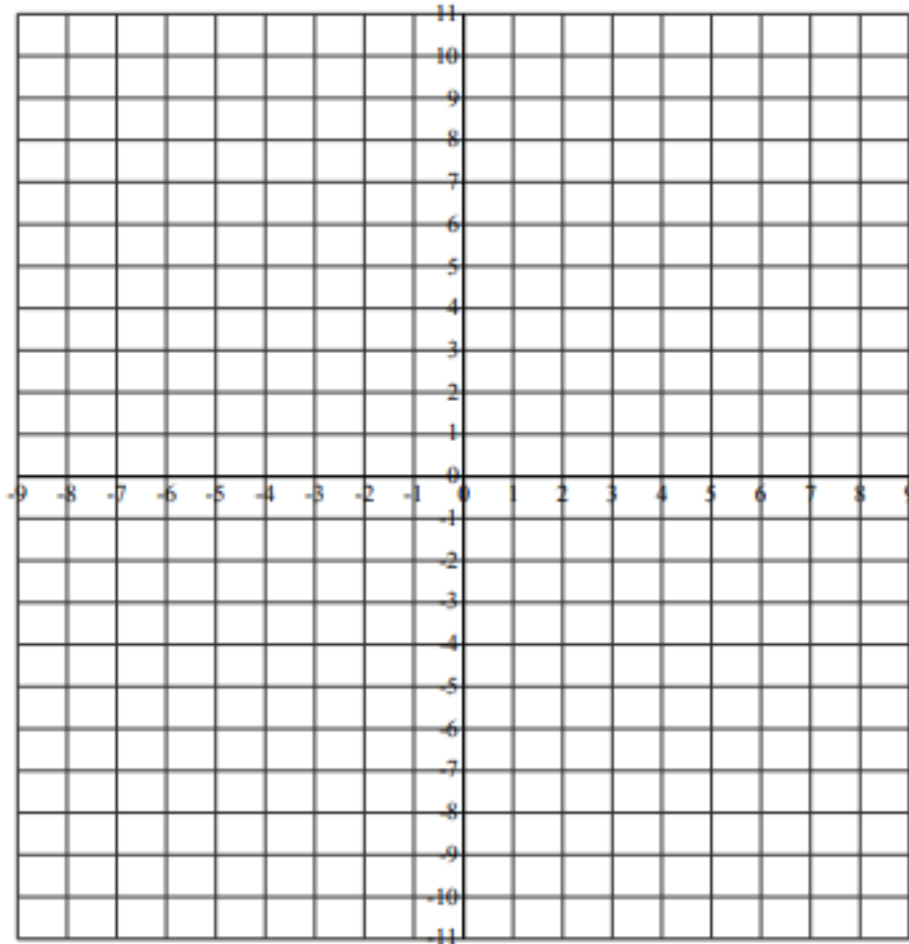
Plot the following points on the coordinate grid.

- | | | |
|--------------|-------------|--------------|
| 13. S (6,11) | 14. T (3,5) | 15. U (9,12) |
|--------------|-------------|--------------|

Plotting Coordinate Points (A)

Plot the coordinate points below.

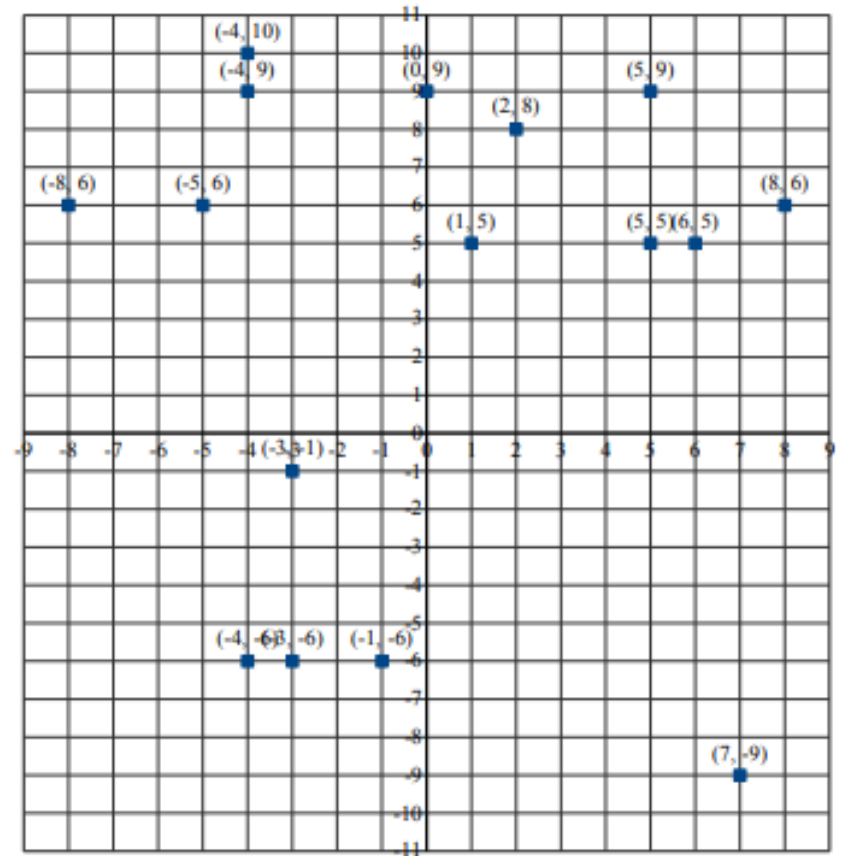
$(-4, 10)$ $(7, -9)$ $(0, 9)$ $(-8, 6)$ $(-4, -6)$ $(6, 5)$ $(-3, -1)$ $(5, 5)$
 $(-5, 6)$ $(-3, -6)$ $(-1, -6)$ $(5, 9)$ $(8, 6)$ $(1, 5)$ $(-4, 9)$ $(2, 8)$



Plotting Coordinate Points (A) Answers

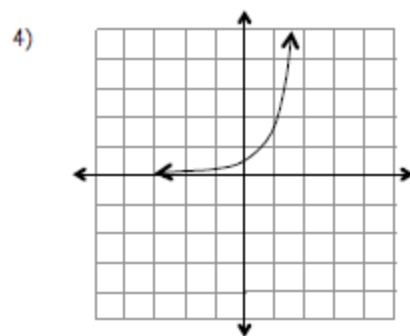
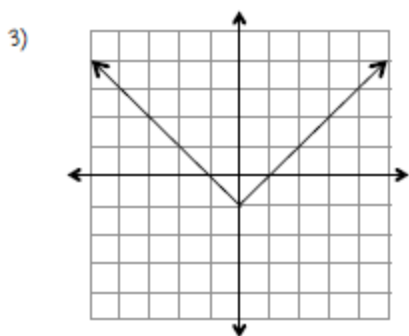
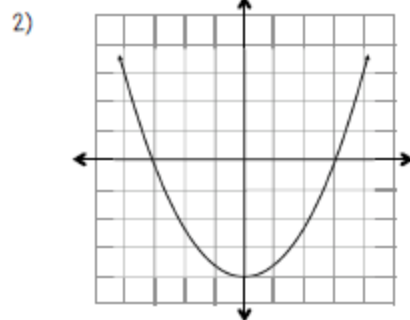
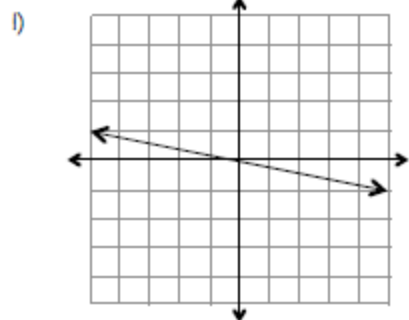
Plot the coordinate points below.

$(-4, 10)$ $(7, -9)$ $(0, 9)$ $(-8, 6)$ $(-4, -6)$ $(6, 5)$ $(-3, -1)$ $(5, 5)$
 $(-5, 6)$ $(-3, -6)$ $(-1, -6)$ $(5, 9)$ $(8, 6)$ $(1, 5)$ $(-4, 9)$ $(2, 8)$



Linear or Non-Linear:

For 1-13, identify each function as linear or nonlinear.



Solutions: 1. Linear 2. Non-Linear 3. Non-linear 4. Non-linear
11. Non-linear 12. Linear 13. Non. Linear

11)

x	y
0	1
1	3
2	9
3	27

12)

x	y
-5	4
0	1
5	-2
10	-5

13)

x	y
0	0
2	6
4	18
6	38

Input/Output Rule :



Determining Function Machine Rule

Name: _____

Determine what rule the function machine is using.

1)

Input	Output
13	17
20	24
22	26
41	45
42	46

- A. Subtract 4
- B. Subtract 5
- C. Add 4
- D. Add 5

2)

Input	Output
14	20
28	34
37	43
42	48
50	56

- A. Subtract 6
- B. Add 6
- C. Add 8
- D. Add 5

3)

Input	Output
25	14
42	31
42	31
50	39
59	48

- A. Subtract 8
- B. Subtract 14
- C. Subtract 11
- D. Add 11

4)

In	Out
26	16
32	22
44	34
48	38
55	45

- A. Subtract 11
- B. Add 10
- C. Add 11
- D. Subtract 10

5)

Input	Output
10	19
22	31
23	32
24	33
46	55

- A. Add 9
- B. Subtract 10
- C. Add 10
- D. Add 6

6)

In	Out
17	30
24	37
31	44
40	53
41	54

- A. Add 15
- B. Subtract 13
- C. Subtract 15
- D. Add 13

7)

In	Out
15	25
18	28
36	46
46	56
48	58

- A. Subtract 10
- B. Add 10
- C. Subtract 13
- D. Add 13

8)

In	Out
20	13
31	24
38	31
44	37
54	47

- A. Subtract 10
- B. Add 10
- C. Add 7
- D. Subtract 7

9)

Input	Output
21	11
28	18
30	20
31	21
45	35

- A. Add 10
- B. Subtract 8
- C. Subtract 10
- D. Subtract 13

Answers

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



Determining Function Machine Rule

Name: **Answer Key**

Determine what rule the function machine is using.

1)

Input	Output
13	17
20	24
22	26
41	45
42	46

- A. Subtract 4
- B. Subtract 5
- C. Add 4
- D. Add 5

2)

Input	Output
14	20
28	34
37	43
42	48
50	56

- A. Subtract 6
- B. Add 6
- C. Add 8
- D. Add 5

3)

Input	Output
25	14
42	31
42	31
50	39
59	48

- A. Subtract 8
- B. Subtract 14
- C. Subtract 11
- D. Add 11

4)

In	Out
26	16
32	22
44	34
48	38
55	45

- A. Subtract 11
- B. Add 10
- C. Add 11
- D. Subtract 10

5)

Input	Output
10	19
22	31
23	32
24	33
46	55

- A. Add 9
- B. Subtract 10
- C. Add 10
- D. Add 6

6)

In	Out
17	30
24	37
31	44
40	53
41	54

- A. Add 15
- B. Subtract 13
- C. Subtract 15
- D. Add 13

7)

In	Out
15	25
18	28
36	46
46	56
48	58

- A. Subtract 10
- B. Add 10
- C. Subtract 13
- D. Add 13

8)

In	Out
20	13
31	24
38	31
44	37
54	47

- A. Subtract 10
- B. Add 10
- C. Add 7
- D. Subtract 7

9)

Input	Output
21	11
28	18
30	20
31	21
45	35

- A. Add 10
- B. Subtract 8
- C. Subtract 10
- D. Subtract 13

Answers

1. **C**
2. **B**
3. **C**
4. **D**
5. **A**
6. **D**
7. **B**
8. **D**
9. **C**

+ Function Machines - Filling in Missing Digit Name: _____

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

1)

Input	Output
94	99
85	
16	21
75	80
62	67

2)

Input	Output
3	27
8	72
9	81
5	45
4	

3)

Input	Output
43	55
75	87
62	74
77	
64	76

4)

Input	Output
	19
95	96
36	37
82	83
89	90

5)

Input	Output
25	12
85	72
57	44
62	49
	30

6)

Input	Output
24	3
	2
72	9
56	7
32	4

7)

In	4	5	9		8
Out	20	25	45	10	40

8)

In	3		9	4	6
Out	12	40	36	16	24

9)

In	56	21		42	63
Out	8	3	2	6	9

10)

In	2	4	5	8	9
Out	4	8		16	18

11)

In	12	24	48	54	30
Out	2	4	8	9	

12)

In	60	81	62	32	15
Out	57	78		29	12

Answers

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

+ Function Machines - Filling in Missing Digit Name: **Answer Key**

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

1)

Input	Output
94	99
85	90
16	21
75	80
62	67

Rule: Add 5

2)

Input	Output
3	27
8	72
9	81
5	45
4	36

Rule: Mult 9

3)

Input	Output
43	55
75	87
62	74
77	89
64	76

Rule: Add 12

4)

Input	Output
18	19
95	96
36	37
82	83
89	90

Rule: Add 1

5)

Input	Output
25	12
85	72
57	44
62	49
43	30

Rule: Sub 13

6)

Input	Output
24	3
16	2
72	9
56	7
32	4

Rule: Div 8

7)

In	4	5	9	2	8
Out	20	25	45	10	40

Rule: Mult 5

8)

In	3	10	9	4	6
Out	12	40	36	16	24

Rule: Mult 4

9)

In	56	21	14	42	63
Out	8	3	2	6	9

Rule: Div 7

10)

In	2	4	5	8	9
Out	4	8	10	16	18

Rule: Mult 2

11)

In	12	24	48	54	30
Out	2	4	8	9	5

Rule: Div 6

12)

In	60	81	62	32	15
Out	57	78	59	29	12


Rule: Sub 3

Answers

1. **90**
2. **36**
3. **89**
4. **18**
5. **43**
6. **16**
7. **2**
8. **10**
9. **14**
10. **10**
11. **5**
12. **59**

Input/Output:

<https://outlook.office.com/mail/inbox/id/AAQkADZkY2NkYjA5LWRIMzktNGRIZC04MzAxLTUzMGUyYWNmN2NhMAAQaETWKYIBh59GpBgn4ia%2BBpY%3D>

 **Function Machines - Creating Equations** Name: _____

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

1)

Input (g)	Output (h)
10	40
2	8
7	28
9	36
4	16

 2)

Input (m)	Output (n)
21	4
18	1
19	2
106	89
96	79

 3)

Input (o)	Output (p)
20	14
37	31
10	4
67	61
92	86

4)

Input (m)	Output (n)
4	24
1	21
10	30
60	80
37	57

 5)

Input (y)	Output (z)
18	6
6	2
27	9
21	7
15	5

 6)

Input (e)	Output (f)
7	42
9	54
6	36
2	12
3	18

7)

In (s)	90	80	100	30
Out (t)	9	8	10	3

 8)

In (a)	63	45	90	36
Out (b)	7	5	10	4

9)

In (k)	49	32	58	44
Out (l)	37	20	46	32

 10)

In (l)	10	7	8	5
Out (m)	20	14	16	10

11)

In (c)	1	2	32	10
Out (d)	16	17	47	25

 12)

In (y)	15	20	35	50
Out (z)	3	4	7	10

Answers

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

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

1)

Input (g)	Output (h)
10	40
2	8
7	28
9	36
4	16

 $g \times 4 = h$

2)

Input (m)	Output (n)
21	4
18	1
19	2
106	89
96	79

 $m - 17 = n$

3)

Input (o)	Output (p)
20	14
37	31
10	4
67	61
92	86

 $o - 6 = p$

4)

Input (m)	Output (n)
4	24
1	21
10	30
60	80
37	57

 $m + 20 = n$

5)

Input (y)	Output (z)
18	6
6	2
27	9
21	7
15	5

 $y + 3 = z$

6)

Input (e)	Output (f)
7	42
9	54
6	36
2	12
3	18

 $e \times 6 = f$

7)

In (s)	90	80	100	30
Out (t)	9	8	10	3

 $s \div 10 = t$

8)

In (a)	63	45	90	36
Out (b)	7	5	10	4

 $a \div 9 = b$

9)

In (k)	49	32	58	44
Out (l)	37	20	46	32

 $k - 12 = l$

10)

In (l)	10	7	8	5
Out (m)	20	14	16	10

 $l \times 2 = m$

11)

In (c)	1	2	32	10
Out (d)	16	17	47	25

 $c + 15 = d$

12)

In (y)	15	20	35	50
Out (z)	3	4	7	10

 $y \div 5 = z$

Answers

- $g \times 4 = h$
- $m - 17 = n$
- $o - 6 = p$
- $m + 20 = n$
- $y + 3 = z$
- $e \times 6 = f$
- $s \div 10 = t$
- $a \div 9 = b$
- $k - 12 = l$
- $l \times 2 = m$
- $c + 15 = d$
- $y \div 5 = z$