



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (T)</b>	13	10	14	15	9
<b>Output</b>	8	5	9	10	4

A.  $T \times 6 - 8$  B.  $T \times 5 - 11$   
C.  $T - 5$  D.  $T \times 5 + 7$

1. \_\_\_\_\_

2) 

<b>Input (N)</b>	5	9	10	8	4
<b>Output</b>	16	36	41	31	11

A.  $N \times 5 - 9$  B.  $N \times 9$   
C.  $N \times 9 + 9$  D.  $N \times 5$

2. \_\_\_\_\_

3) 

<b>Input (K)</b>	4	10	9	5	8
<b>Output</b>	17	29	27	19	25

A.  $K \times 3 - 9$  B.  $K \times 2$   
C.  $K \times 2 + 12$  D.  $K \times 2 + 9$

3. \_\_\_\_\_

4) 

<b>Input (U)</b>	4	8	10	5	9
<b>Output</b>	25	41	49	29	45

A.  $U + 4$  B.  $U \times 4 + 9$   
C.  $U \times 9$  D.  $U \times 4 + 11$

4. \_\_\_\_\_

5) 

<b>Input (Z)</b>	10	5	9	8	4
<b>Output</b>	16	11	15	14	10

A.  $Z \times 6 - 9$  B.  $Z \times 7 - 8$   
C.  $Z + 8$  D.  $Z + 6$

5. \_\_\_\_\_

6) 

<b>Input (J)</b>	8	10	9	4	5
<b>Output</b>	48	60	54	24	30

A.  $J \times 6$  B.  $J \times 6 + 10$   
C.  $J + 7$  D.  $J \times 6 - 6$

6. \_\_\_\_\_

7) 

<b>Input (S)</b>	4	8	9	10	5
<b>Output</b>	8	12	13	14	9

A.  $S + 4$  B.  $S + 8$   
C.  $S \times 8$  D.  $S \times 4$

7. \_\_\_\_\_

8) 

<b>Input (R)</b>	4	9	10	8	5
<b>Output</b>	19	54	61	47	26

A.  $R \times 7 - 11$  B.  $R \times 7 - 9$   
C.  $R + 7$  D.  $R \times 9$

8. \_\_\_\_\_

9) 

<b>Input (L)</b>	10	8	9	4	5
<b>Output</b>	90	72	81	36	45

A.  $L \times 9 - 12$  B.  $L \times 9$   
C.  $L + 10$  D.  $L \times 8 - 10$

9. \_\_\_\_\_

10) 

<b>Input (P)</b>	8	9	4	10	5
<b>Output</b>	21	23	13	25	15

A.  $P \times 2 + 5$  B.  $P \times 5$   
C.  $P \times 4 - 5$  D.  $P + 2$

10. \_\_\_\_\_



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (T)</b>	13	10	14	15	9
<b>Output</b>	8	5	9	10	4

A.  $T \times 6 - 8$ 
B.  $T \times 5 - 11$   
C.  $T - 5$ 
D.  $T \times 5 + 7$

1.     **C**    

2) 

<b>Input (N)</b>	5	9	10	8	4
<b>Output</b>	16	36	41	31	11

A.  $N \times 5 - 9$ 
B.  $N \times 9$   
C.  $N \times 9 + 9$ 
D.  $N \times 5$

2.     **A**    

3) 

<b>Input (K)</b>	4	10	9	5	8
<b>Output</b>	17	29	27	19	25

A.  $K \times 3 - 9$ 
B.  $K \times 2$   
C.  $K \times 2 + 12$ 
D.  $K \times 2 + 9$

3.     **D**    

4.     **B**    

4) 

<b>Input (U)</b>	4	8	10	5	9
<b>Output</b>	25	41	49	29	45

A.  $U + 4$ 
B.  $U \times 4 + 9$   
C.  $U \times 9$ 
D.  $U \times 4 + 11$

5.     **D**    

6.     **A**    

5) 

<b>Input (Z)</b>	10	5	9	8	4
<b>Output</b>	16	11	15	14	10

A.  $Z \times 6 - 9$ 
B.  $Z \times 7 - 8$   
C.  $Z + 8$ 
D.  $Z + 6$

7.     **A**    

8.     **B**    

6) 

<b>Input (J)</b>	8	10	9	4	5
<b>Output</b>	48	60	54	24	30

A.  $J \times 6$ 
B.  $J \times 6 + 10$   
C.  $J + 7$ 
D.  $J \times 6 - 6$

9.     **B**    

10.     **A**    

7) 

<b>Input (S)</b>	4	8	9	10	5
<b>Output</b>	8	12	13	14	9

A.  $S + 4$ 
B.  $S + 8$   
C.  $S \times 8$ 
D.  $S \times 4$

8) 

<b>Input (R)</b>	4	9	10	8	5
<b>Output</b>	19	54	61	47	26

A.  $R \times 7 - 11$ 
B.  $R \times 7 - 9$   
C.  $R + 7$ 
D.  $R \times 9$

9) 

<b>Input (L)</b>	10	8	9	4	5
<b>Output</b>	90	72	81	36	45

A.  $L \times 9 - 12$ 
B.  $L \times 9$   
C.  $L + 10$ 
D.  $L \times 8 - 10$

10) 

<b>Input (P)</b>	8	9	4	10	5
<b>Output</b>	21	23	13	25	15

A.  $P \times 2 + 5$ 
B.  $P \times 5$   
C.  $P \times 4 - 5$ 
D.  $P + 2$



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (J)</b>	6	7	5	10	8
<b>Output</b>	8	9	7	12	10

- A.  $J \times 2 - 5$       B.  $J \times 6$   
 C.  $J \times 6 + 6$       D.  $J + 2$

1. \_\_\_\_\_

2) 

<b>Input (U)</b>	13	15	10	12	11
<b>Output</b>	8	10	5	7	6

- A.  $U \times 8 + 8$       B.  $U - 5$   
 C.  $U \times 5$       D.  $U \times 8$

2. \_\_\_\_\_

3) 

<b>Input (W)</b>	5	6	10	8	7
<b>Output</b>	29	33	49	41	37

- A.  $W \times 4$       B.  $W \times 4 + 9$   
 C.  $W \times 9$       D.  $W \times 4 + 11$

3. \_\_\_\_\_

4) 

<b>Input (N)</b>	5	6	8	7	10
<b>Output</b>	40	48	64	56	80

- A.  $N \times 11 - 3$       B.  $N \times 8 - 5$   
 C.  $N + 3$       D.  $N \times 8$

4. \_\_\_\_\_

5) 

<b>Input (P)</b>	8	10	7	6	5
<b>Output</b>	11	13	10	9	8

- A.  $P + 3$       B.  $P \times 3 + 11$   
 C.  $P \times 3 - 10$       D.  $P + 9$

5. \_\_\_\_\_

6) 

<b>Input (V)</b>	7	10	8	6	5
<b>Output</b>	35	53	41	29	23

- A.  $V + 6$       B.  $V + 7$   
 C.  $V \times 5 - 7$       D.  $V \times 6 - 7$

6. \_\_\_\_\_

7) 

<b>Input (Z)</b>	5	8	7	10	6
<b>Output</b>	22	40	34	52	28

- A.  $Z \times 6$       B.  $Z \times 8 + 8$   
 C.  $Z \times 6 - 8$       D.  $Z \times 6 - 9$

7. \_\_\_\_\_

8) 

<b>Input (K)</b>	10	8	5	6	7
<b>Output</b>	38	32	23	26	29

- A.  $K \times 3$       B.  $K \times 3 + 8$   
 C.  $K \times 8 + 8$       D.  $K \times 3 + 11$

8. \_\_\_\_\_

9) 

<b>Input (G)</b>	5	10	6	7	8
<b>Output</b>	14	24	16	18	20

- A.  $G \times 5 - 4$       B.  $G \times 2 + 6$   
 C.  $G \times 2$       D.  $G \times 2 + 4$

9. \_\_\_\_\_

10) 

<b>Input (F)</b>	6	8	7	5	10
<b>Output</b>	30	40	35	25	50

- A.  $F \times 9 + 4$       B.  $F \times 5 + 7$   
 C.  $F \times 5$       D.  $F \times 5 - 6$

10. \_\_\_\_\_



Determine which rule best represents the expression the function machine used.

**Answers**

1) <b>Input (J)</b>	6	7	5	10	8
<b>Output</b>	8	9	7	12	10

- A.  $J \times 2 - 5$       B.  $J \times 6$   
 C.  $J \times 6 + 6$       D.  $J + 2$

1.     **D**    

2) <b>Input (U)</b>	13	15	10	12	11
<b>Output</b>	8	10	5	7	6

- A.  $U \times 8 + 8$       B.  $U - 5$   
 C.  $U \times 5$       D.  $U \times 8$

2.     **B**    

3) <b>Input (W)</b>	5	6	10	8	7
<b>Output</b>	29	33	49	41	37

- A.  $W \times 4$       B.  $W \times 4 + 9$   
 C.  $W \times 9$       D.  $W \times 4 + 11$

3.     **B**    

4.     **D**    

4) <b>Input (N)</b>	5	6	8	7	10
<b>Output</b>	40	48	64	56	80

- A.  $N \times 11 - 3$       B.  $N \times 8 - 5$   
 C.  $N + 3$       D.  $N \times 8$

5.     **A**    

6.     **D**    

7.     **C**    

5) <b>Input (P)</b>	8	10	7	6	5
<b>Output</b>	11	13	10	9	8

- A.  $P + 3$       B.  $P \times 3 + 11$   
 C.  $P \times 3 - 10$       D.  $P + 9$

8.     **B**    

9.     **D**    

10.     **C**    

6) <b>Input (V)</b>	7	10	8	6	5
<b>Output</b>	35	53	41	29	23

- A.  $V + 6$       B.  $V + 7$   
 C.  $V \times 5 - 7$       D.  $V \times 6 - 7$

7) <b>Input (Z)</b>	5	8	7	10	6
<b>Output</b>	22	40	34	52	28

- A.  $Z \times 6$       B.  $Z \times 8 + 8$   
 C.  $Z \times 6 - 8$       D.  $Z \times 6 - 9$

8) <b>Input (K)</b>	10	8	5	6	7
<b>Output</b>	38	32	23	26	29

- A.  $K \times 3$       B.  $K \times 3 + 8$   
 C.  $K \times 8 + 8$       D.  $K \times 3 + 11$

9) <b>Input (G)</b>	5	10	6	7	8
<b>Output</b>	14	24	16	18	20

- A.  $G \times 5 - 4$       B.  $G \times 2 + 6$   
 C.  $G \times 2$       D.  $G \times 2 + 4$

10) <b>Input (F)</b>	6	8	7	5	10
<b>Output</b>	30	40	35	25	50

- A.  $F \times 9 + 4$       B.  $F \times 5 + 7$   
 C.  $F \times 5$       D.  $F \times 5 - 6$



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (W)</b>	4	9	3	7	2
<b>Output</b>	13	18	12	16	11

- A.  $W \times 14 + 10$       B.  $W \times 9 + 9$   
 C.  $W \times 10$               D.  $W + 9$

2) 

<b>Input (P)</b>	2	4	3	9	7
<b>Output</b>	19	29	24	54	44

- A.  $P \times 5 + 9$               B.  $P + 9$   
 C.  $P \times 9 + 9$               D.  $P + 5$

3) 

<b>Input (J)</b>	7	4	9	2	3
<b>Output</b>	40	19	54	5	12

- A.  $J + 7$                       B.  $J \times 7 - 11$   
 C.  $J \times 9 + 9$               D.  $J \times 7 - 9$

4) 

<b>Input (F)</b>	4	7	2	9	3
<b>Output</b>	42	72	22	92	32

- A.  $F \times 10$                   B.  $F \times 14 + 2$   
 C.  $F + 10$                   D.  $F \times 10 + 2$

5) 

<b>Input (G)</b>	16	14	9	11	10
<b>Output</b>	9	7	2	4	3

- A.  $G \times 9 + 9$               B.  $G \times 7$   
 C.  $G \times 9$                     D.  $G - 7$

6) 

<b>Input (Y)</b>	9	4	7	3	2
<b>Output</b>	90	40	70	30	20

- A.  $Y + 10$                   B.  $Y \times 10 - 4$   
 C.  $Y \times 3$                     D.  $Y \times 10$

7) 

<b>Input (L)</b>	10	8	13	15	9
<b>Output</b>	4	2	7	9	3

- A.  $L \times 6 - 9$               B.  $L + 8$   
 C.  $L - 6$                     D.  $L \times 6 + 9$

8) 

<b>Input (R)</b>	9	3	7	4	2
<b>Output</b>	11	5	9	6	4

- A.  $R \times 7 + 6$               B.  $R \times 2 - 9$   
 C.  $R + 2$                     D.  $R + 6$

9) 

<b>Input (T)</b>	4	9	2	3	7
<b>Output</b>	21	36	15	18	30

- A.  $T + 9$                     B.  $T \times 3 + 9$   
 C.  $T \times 3 + 10$               D.  $T \times 4 - 9$

10) 

<b>Input (H)</b>	2	3	4	9	7
<b>Output</b>	1	6	11	36	26

- A.  $H \times 7 - 9$               B.  $H \times 5 - 9$   
 C.  $H + 9$                     D.  $H + 5$

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (W)</b>	4	9	3	7	2
<b>Output</b>	13	18	12	16	11

A.  $W \times 14 + 10$ 
B.  $W \times 9 + 9$   
C.  $W \times 10$ 
D.  $W + 9$

1.     **D**    

2) 

<b>Input (P)</b>	2	4	3	9	7
<b>Output</b>	19	29	24	54	44

A.  $P \times 5 + 9$ 
B.  $P + 9$   
C.  $P \times 9 + 9$ 
D.  $P + 5$

2.     **A**    

3) 

<b>Input (J)</b>	7	4	9	2	3
<b>Output</b>	40	19	54	5	12

A.  $J + 7$ 
B.  $J \times 7 - 11$   
C.  $J \times 9 + 9$ 
D.  $J \times 7 - 9$

3.     **D**    

4) 

<b>Input (F)</b>	4	7	2	9	3
<b>Output</b>	42	72	22	92	32

A.  $F \times 10$ 
B.  $F \times 14 + 2$   
C.  $F + 10$ 
D.  $F \times 10 + 2$

4.     **D**    

5) 

<b>Input (G)</b>	16	14	9	11	10
<b>Output</b>	9	7	2	4	3

A.  $G \times 9 + 9$ 
B.  $G \times 7$   
C.  $G \times 9$ 
D.  $G - 7$

5.     **D**    

6) 

<b>Input (Y)</b>	9	4	7	3	2
<b>Output</b>	90	40	70	30	20

A.  $Y + 10$ 
B.  $Y \times 10 - 4$   
C.  $Y \times 3$ 
D.  $Y \times 10$

6.     **D**    

7) 

<b>Input (L)</b>	10	8	13	15	9
<b>Output</b>	4	2	7	9	3

A.  $L \times 6 - 9$ 
B.  $L + 8$   
C.  $L - 6$ 
D.  $L \times 6 + 9$

7.     **C**    

8) 

<b>Input (R)</b>	9	3	7	4	2
<b>Output</b>	11	5	9	6	4

A.  $R \times 7 + 6$ 
B.  $R \times 2 - 9$   
C.  $R + 2$ 
D.  $R + 6$

8.     **C**    

9) 

<b>Input (T)</b>	4	9	2	3	7
<b>Output</b>	21	36	15	18	30

A.  $T + 9$ 
B.  $T \times 3 + 9$   
C.  $T \times 3 + 10$ 
D.  $T \times 4 - 9$

9.     **B**    

10) 

<b>Input (H)</b>	2	3	4	9	7
<b>Output</b>	1	6	11	36	26

A.  $H \times 7 - 9$ 
B.  $H \times 5 - 9$   
C.  $H + 9$ 
D.  $H + 5$

10.     **B**



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (H)</b>	7	10	4	6	9
<b>Output</b>	16	19	13	15	18

- A.  $H \times 2$                       B.  $H + 9$   
 C.  $H \times 9 - 1$                   D.  $H \times 11 - 2$

2) 

<b>Input (L)</b>	6	10	9	7	4
<b>Output</b>	46	70	64	52	34

- A.  $L \times 10$                       B.  $L \times 5 - 10$   
 C.  $L \times 6 + 10$                 D.  $L + 10$

3) 

<b>Input (G)</b>	9	10	7	4	6
<b>Output</b>	88	98	68	38	58

- A.  $G \times 10 - 2$                 B.  $G + 10$   
 C.  $G \times 13 + 2$                 D.  $G \times 11 - 2$

4) 

<b>Input (Q)</b>	14	18	12	17	15
<b>Output</b>	6	10	4	9	7

- A.  $Q \times 11 - 10$                 B.  $Q \times 10$   
 C.  $Q - 8$                         D.  $Q \times 10 + 10$

5) 

<b>Input (F)</b>	7	4	10	6	9
<b>Output</b>	17	14	20	16	19

- A.  $F + 10$                       B.  $F \times 10$   
 C.  $F + 3$                         D.  $F \times 10 + 5$

6) 

<b>Input (N)</b>	20	17	14	19	16
<b>Output</b>	10	7	4	9	6

- A.  $N + 2$                         B.  $N - 10$   
 C.  $N + 10$                       D.  $N \times 10 + 4$

7) 

<b>Input (U)</b>	4	6	7	10	9
<b>Output</b>	25	33	37	49	45

- A.  $U \times 4 + 10$                 B.  $U + 4$   
 C.  $U \times 9 + 9$                 D.  $U \times 4 + 9$

8) 

<b>Input (M)</b>	10	9	4	7	6
<b>Output</b>	40	35	10	25	20

- A.  $M + 10$                       B.  $M \times 10 + 10$   
 C.  $M \times 5 - 10$                 D.  $M \times 6 - 10$

9) 

<b>Input (J)</b>	7	9	4	6	10
<b>Output</b>	58	72	37	51	79

- A.  $J \times 7 + 12$                 B.  $J \times 7 + 9$   
 C.  $J + 9$                         D.  $J + 7$

10) 

<b>Input (P)</b>	9	4	6	7	10
<b>Output</b>	63	28	42	49	70

- A.  $P \times 7 - 9$                     B.  $P \times 7$   
 C.  $P + 8$                         D.  $P \times 11 + 8$

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (H)</b>	7	10	4	6	9
<b>Output</b>	16	19	13	15	18

- A.  $H \times 2$                       B.  $H + 9$   
 C.  $H \times 9 - 1$                   D.  $H \times 11 - 2$

1.     **B**    

2) 

<b>Input (L)</b>	6	10	9	7	4
<b>Output</b>	46	70	64	52	34

- A.  $L \times 10$                       B.  $L \times 5 - 10$   
 C.  $L \times 6 + 10$                   D.  $L + 10$

2.     **C**    

3) 

<b>Input (G)</b>	9	10	7	4	6
<b>Output</b>	88	98	68	38	58

- A.  $G \times 10 - 2$                   B.  $G + 10$   
 C.  $G \times 13 + 2$                   D.  $G \times 11 - 2$

3.     **A**    

4) 

<b>Input (Q)</b>	14	18	12	17	15
<b>Output</b>	6	10	4	9	7

- A.  $Q \times 11 - 10$                   B.  $Q \times 10$   
 C.  $Q - 8$                           D.  $Q \times 10 + 10$

4.     **C**    

5) 

<b>Input (F)</b>	7	4	10	6	9
<b>Output</b>	17	14	20	16	19

- A.  $F + 10$                       B.  $F \times 10$   
 C.  $F + 3$                           D.  $F \times 10 + 5$

5.     **A**    

6) 

<b>Input (N)</b>	20	17	14	19	16
<b>Output</b>	10	7	4	9	6

- A.  $N + 2$                       B.  $N - 10$   
 C.  $N + 10$                       D.  $N \times 10 + 4$

6.     **B**    

7) 

<b>Input (U)</b>	4	6	7	10	9
<b>Output</b>	25	33	37	49	45

- A.  $U \times 4 + 10$                   B.  $U + 4$   
 C.  $U \times 9 + 9$                   D.  $U \times 4 + 9$

7.     **D**    

8) 

<b>Input (M)</b>	10	9	4	7	6
<b>Output</b>	40	35	10	25	20

- A.  $M + 10$                       B.  $M \times 10 + 10$   
 C.  $M \times 5 - 10$                   D.  $M \times 6 - 10$

8.     **C**    

9) 

<b>Input (J)</b>	7	9	4	6	10
<b>Output</b>	58	72	37	51	79

- A.  $J \times 7 + 12$                   B.  $J \times 7 + 9$   
 C.  $J + 9$                           D.  $J + 7$

9.     **B**    

10) 

<b>Input (P)</b>	9	4	6	7	10
<b>Output</b>	63	28	42	49	70

- A.  $P \times 7 - 9$                       B.  $P \times 7$   
 C.  $P + 8$                           D.  $P \times 11 + 8$

10.     **B**





Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (G)</b>	8	7	3	9	4
<b>Output</b>	25	23	15	27	17

- A.  $G \times 2 + 9$       B.  $G \times 9$   
 C.  $G \times 2 + 12$       D.  $G \times 2$

2) 

<b>Input (F)</b>	9	7	4	3	8
<b>Output</b>	11	9	6	5	10

- A.  $F \times 2 + 12$       B.  $F + 2$   
 C.  $F \times 7 + 10$       D.  $F \times 2$

3) 

<b>Input (J)</b>	3	8	4	9	7
<b>Output</b>	10	20	12	22	18

- A.  $J + 2$       B.  $J \times 2 + 7$   
 C.  $J \times 4$       D.  $J \times 2 + 4$

4) 

<b>Input (K)</b>	4	3	8	7	9
<b>Output</b>	24	18	48	42	54

- A.  $K \times 3$       B.  $K \times 8 - 3$   
 C.  $K \times 6$       D.  $K + 3$

5) 

<b>Input (V)</b>	7	9	3	8	4
<b>Output</b>	23	27	15	25	17

- A.  $V \times 9$       B.  $V \times 3 - 9$   
 C.  $V \times 2 + 9$       D.  $V + 2$

6) 

<b>Input (Z)</b>	15	14	10	9	13
<b>Output</b>	9	8	4	3	7

- A.  $Z \times 9$       B.  $Z - 6$   
 C.  $Z + 6$       D.  $Z \times 6$

7) 

<b>Input (T)</b>	3	8	4	9	7
<b>Output</b>	5	10	6	11	9

- A.  $T \times 5 - 9$       B.  $T + 2$   
 C.  $T \times 5 + 9$       D.  $T \times 9$

8) 

<b>Input (Q)</b>	4	3	9	7	8
<b>Output</b>	11	6	36	26	31

- A.  $Q \times 9$       B.  $Q \times 6 - 9$   
 C.  $Q \times 5 - 10$       D.  $Q \times 5 - 9$

9) 

<b>Input (M)</b>	4	3	7	9	8
<b>Output</b>	40	30	70	90	80

- A.  $M \times 12 - 7$       B.  $M \times 10$   
 C.  $M \times 10 - 8$       D.  $M + 10$

10) 

<b>Input (H)</b>	18	17	14	13	19
<b>Output</b>	8	7	4	3	9

- A.  $H \times 9$       B.  $H - 10$   
 C.  $H + 9$       D.  $H \times 12 - 9$

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_



Determine which rule best represents the expression the function machine used.

**Answers**

1)	<b>Input (G)</b>	8	7	3	9	4
	<b>Output</b>	25	23	15	27	17

- A.  $G \times 2 + 9$       B.  $G \times 9$   
 C.  $G \times 2 + 12$       D.  $G \times 2$

1.   **A**  

2)	<b>Input (F)</b>	9	7	4	3	8
	<b>Output</b>	11	9	6	5	10

- A.  $F \times 2 + 12$       B.  $F + 2$   
 C.  $F \times 7 + 10$       D.  $F \times 2$

2.   **B**  

3)	<b>Input (J)</b>	3	8	4	9	7
	<b>Output</b>	10	20	12	22	18

- A.  $J + 2$       B.  $J \times 2 + 7$   
 C.  $J \times 4$       D.  $J \times 2 + 4$

3.   **D**  

4.   **C**  

4)	<b>Input (K)</b>	4	3	8	7	9
	<b>Output</b>	24	18	48	42	54

- A.  $K \times 3$       B.  $K \times 8 - 3$   
 C.  $K \times 6$       D.  $K + 3$

5.   **C**  

6.   **B**  

5)	<b>Input (V)</b>	7	9	3	8	4
	<b>Output</b>	23	27	15	25	17

- A.  $V \times 9$       B.  $V \times 3 - 9$   
 C.  $V \times 2 + 9$       D.  $V + 2$

7.   **B**  

8.   **D**  

6)	<b>Input (Z)</b>	15	14	10	9	13
	<b>Output</b>	9	8	4	3	7

- A.  $Z \times 9$       B.  $Z - 6$   
 C.  $Z + 6$       D.  $Z \times 6$

9.   **B**  

10.   **B**  

7)	<b>Input (T)</b>	3	8	4	9	7
	<b>Output</b>	5	10	6	11	9

- A.  $T \times 5 - 9$       B.  $T + 2$   
 C.  $T \times 5 + 9$       D.  $T \times 9$

8)	<b>Input (Q)</b>	4	3	9	7	8
	<b>Output</b>	11	6	36	26	31

- A.  $Q \times 9$       B.  $Q \times 6 - 9$   
 C.  $Q \times 5 - 10$       D.  $Q \times 5 - 9$

9)	<b>Input (M)</b>	4	3	7	9	8
	<b>Output</b>	40	30	70	90	80

- A.  $M \times 12 - 7$       B.  $M \times 10$   
 C.  $M \times 10 - 8$       D.  $M + 10$

10)	<b>Input (H)</b>	18	17	14	13	19
	<b>Output</b>	8	7	4	3	9

- A.  $H \times 9$       B.  $H - 10$   
 C.  $H + 9$       D.  $H \times 12 - 9$



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (R)</b>	11	15	13	9	8
<b>Output</b>	6	10	8	4	3

A.  $R \times 9$ 
B.  $R \times 5 + 10$   
C.  $R \times 5 - 12$ 
D.  $R - 5$

1. \_\_\_\_\_

2) 

<b>Input (P)</b>	8	3	4	6	10
<b>Output</b>	17	12	13	15	19

A.  $P \times 9$ 
B.  $P + 3$   
C.  $P + 9$ 
D.  $P \times 8 - 3$

2. \_\_\_\_\_

3) 

<b>Input (T)</b>	3	8	6	10	4
<b>Output</b>	6	16	12	20	8

A.  $T \times 2$ 
B.  $T \times 2 - 6$   
C.  $T \times 6 + 4$ 
D.  $T \times 2 + 3$

3. \_\_\_\_\_

4. \_\_\_\_\_

4) 

<b>Input (V)</b>	3	6	4	8	10
<b>Output</b>	21	51	31	71	91

A.  $V \times 10 - 9$ 
B.  $V \times 9$   
C.  $V \times 10 + 11$ 
D.  $V \times 10$

5. \_\_\_\_\_

6. \_\_\_\_\_

5) 

<b>Input (L)</b>	6	4	3	8	10
<b>Output</b>	37	27	22	47	57

A.  $L \times 5$ 
B.  $L \times 5 + 9$   
C.  $L \times 5 + 7$ 
D.  $L + 5$

7. \_\_\_\_\_

8. \_\_\_\_\_

6) 

<b>Input (J)</b>	17	13	12	15	19
<b>Output</b>	8	4	3	6	10

A.  $J \times 9$ 
B.  $J \times 9 - 10$   
C.  $J - 9$ 
D.  $J + 9$

9. \_\_\_\_\_

10. \_\_\_\_\_

7) 

<b>Input (U)</b>	3	8	6	10	4
<b>Output</b>	7	32	22	42	12

A.  $U \times 5 - 8$ 
B.  $U + 5$   
C.  $U + 8$ 
D.  $U \times 5$

8) 

<b>Input (N)</b>	3	4	6	8	10
<b>Output</b>	29	36	50	64	78

A.  $N \times 7 + 10$ 
B.  $N \times 7 + 8$   
C.  $N \times 7 - 9$ 
D.  $N + 7$

9) 

<b>Input (H)</b>	8	4	6	3	10
<b>Output</b>	64	32	48	24	80

A.  $H \times 11 + 9$ 
B.  $H \times 8 + 11$   
C.  $H \times 8$ 
D.  $H \times 9$

10) 

<b>Input (Z)</b>	6	3	10	8	4
<b>Output</b>	17	11	25	21	13

A.  $Z \times 2 - 6$ 
B.  $Z \times 3 - 5$   
C.  $Z \times 2 + 5$ 
D.  $Z + 5$



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (R)</b>	11	15	13	9	8
<b>Output</b>	6	10	8	4	3

A.  $R \times 9$ 
B.  $R \times 5 + 10$   
C.  $R \times 5 - 12$ 
D.  $R - 5$

1.     **D**    

2) 

<b>Input (P)</b>	8	3	4	6	10
<b>Output</b>	17	12	13	15	19

A.  $P \times 9$ 
B.  $P + 3$   
C.  $P + 9$ 
D.  $P \times 8 - 3$

2.     **C**    

3) 

<b>Input (T)</b>	3	8	6	10	4
<b>Output</b>	6	16	12	20	8

A.  $T \times 2$ 
B.  $T \times 2 - 6$   
C.  $T \times 6 + 4$ 
D.  $T \times 2 + 3$

3.     **A**    

4.     **A**    

4) 

<b>Input (V)</b>	3	6	4	8	10
<b>Output</b>	21	51	31	71	91

A.  $V \times 10 - 9$ 
B.  $V \times 9$   
C.  $V \times 10 + 11$ 
D.  $V \times 10$

5.     **C**    

6.     **C**    

5) 

<b>Input (L)</b>	6	4	3	8	10
<b>Output</b>	37	27	22	47	57

A.  $L \times 5$ 
B.  $L \times 5 + 9$   
C.  $L \times 5 + 7$ 
D.  $L + 5$

7.     **A**    

8.     **B**    

6) 

<b>Input (J)</b>	17	13	12	15	19
<b>Output</b>	8	4	3	6	10

A.  $J \times 9$ 
B.  $J \times 9 - 10$   
C.  $J - 9$ 
D.  $J + 9$

9.     **C**    

10.     **C**    

7) 

<b>Input (U)</b>	3	8	6	10	4
<b>Output</b>	7	32	22	42	12

A.  $U \times 5 - 8$ 
B.  $U + 5$   
C.  $U + 8$ 
D.  $U \times 5$

8) 

<b>Input (N)</b>	3	4	6	8	10
<b>Output</b>	29	36	50	64	78

A.  $N \times 7 + 10$ 
B.  $N \times 7 + 8$   
C.  $N \times 7 - 9$ 
D.  $N + 7$

9) 

<b>Input (H)</b>	8	4	6	3	10
<b>Output</b>	64	32	48	24	80

A.  $H \times 11 + 9$ 
B.  $H \times 8 + 11$   
C.  $H \times 8$ 
D.  $H \times 9$

10) 

<b>Input (Z)</b>	6	3	10	8	4
<b>Output</b>	17	11	25	21	13

A.  $Z \times 2 - 6$ 
B.  $Z \times 3 - 5$   
C.  $Z \times 2 + 5$ 
D.  $Z + 5$



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (S)</b>	3	4	6	5	8
<b>Output</b>	21	28	42	35	56

- A.  $S \times 9 + 4$       B.  $S \times 8 - 4$   
 C.  $S \times 7$               D.  $S \times 4$

2) 

<b>Input (V)</b>	4	6	5	3	8
<b>Output</b>	16	24	20	12	32

- A.  $V \times 7 - 8$       B.  $V \times 4 + 7$   
 C.  $V \times 4$             D.  $V + 8$

3) 

<b>Input (Y)</b>	4	8	5	6	3
<b>Output</b>	17	25	19	21	15

- A.  $Y \times 2$               B.  $Y + 2$   
 C.  $Y \times 2 - 8$         D.  $Y \times 2 + 9$

4) 

<b>Input (M)</b>	14	10	11	12	9
<b>Output</b>	8	4	5	6	3

- A.  $M \times 8 + 8$       B.  $M - 6$   
 C.  $M + 8$               D.  $M \times 8$

5) 

<b>Input (Z)</b>	3	5	8	6	4
<b>Output</b>	21	41	71	51	31

- A.  $Z + 10$               B.  $Z \times 13 - 9$   
 C.  $Z \times 9$               D.  $Z \times 10 - 9$

6) 

<b>Input (F)</b>	4	6	8	5	3
<b>Output</b>	7	9	11	8	6

- A.  $F \times 6$               B.  $F + 3$   
 C.  $F + 6$               D.  $F \times 3 + 8$

7) 

<b>Input (J)</b>	4	8	5	6	3
<b>Output</b>	13	17	14	15	12

- A.  $J \times 9$               B.  $J + 9$   
 C.  $J \times 3$               D.  $J + 3$

8) 

<b>Input (N)</b>	6	4	3	5	8
<b>Output</b>	29	17	11	23	41

- A.  $N \times 6 - 7$       B.  $N + 6$   
 C.  $N + 7$               D.  $N \times 11 + 7$

9) 

<b>Input (T)</b>	13	10	15	12	11
<b>Output</b>	6	3	8	5	4

- A.  $T - 7$               B.  $T \times 10$   
 C.  $T \times 7 + 9$         D.  $T \times 7 - 12$

10) 

<b>Input (R)</b>	4	3	5	8	6
<b>Output</b>	44	35	53	80	62

- A.  $R \times 9 + 8$       B.  $R \times 8 - 8$   
 C.  $R + 8$               D.  $R + 9$

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 4. \_\_\_\_\_  
 5. \_\_\_\_\_  
 6. \_\_\_\_\_  
 7. \_\_\_\_\_  
 8. \_\_\_\_\_  
 9. \_\_\_\_\_  
 10. \_\_\_\_\_



Determine which rule best represents the expression the function machine used.

**Answers**

1) <b>Input (S)</b>	3	4	6	5	8
<b>Output</b>	21	28	42	35	56

- A.  $S \times 9 + 4$       B.  $S \times 8 - 4$   
 C.  $S \times 7$               D.  $S \times 4$

1.   **C**  

2) <b>Input (V)</b>	4	6	5	3	8
<b>Output</b>	16	24	20	12	32

- A.  $V \times 7 - 8$       B.  $V \times 4 + 7$   
 C.  $V \times 4$             D.  $V + 8$

2.   **C**  

3) <b>Input (Y)</b>	4	8	5	6	3
<b>Output</b>	17	25	19	21	15

- A.  $Y \times 2$             B.  $Y + 2$   
 C.  $Y \times 2 - 8$       D.  $Y \times 2 + 9$

3.   **D**  

4) <b>Input (M)</b>	14	10	11	12	9
<b>Output</b>	8	4	5	6	3

- A.  $M \times 8 + 8$       B.  $M - 6$   
 C.  $M + 8$             D.  $M \times 8$

4.   **B**  

5) <b>Input (Z)</b>	3	5	8	6	4
<b>Output</b>	21	41	71	51	31

- A.  $Z + 10$             B.  $Z \times 13 - 9$   
 C.  $Z \times 9$             D.  $Z \times 10 - 9$

5.   **D**  

6) <b>Input (F)</b>	4	6	8	5	3
<b>Output</b>	7	9	11	8	6

- A.  $F \times 6$             B.  $F + 3$   
 C.  $F + 6$             D.  $F \times 3 + 8$

6.   **B**  

7) <b>Input (J)</b>	4	8	5	6	3
<b>Output</b>	13	17	14	15	12

- A.  $J \times 9$             B.  $J + 9$   
 C.  $J \times 3$             D.  $J + 3$

7.   **B**  

8) <b>Input (N)</b>	6	4	3	5	8
<b>Output</b>	29	17	11	23	41

- A.  $N \times 6 - 7$       B.  $N + 6$   
 C.  $N + 7$             D.  $N \times 11 + 7$

8.   **A**  

9) <b>Input (T)</b>	13	10	15	12	11
<b>Output</b>	6	3	8	5	4

- A.  $T - 7$             B.  $T \times 10$   
 C.  $T \times 7 + 9$       D.  $T \times 7 - 12$

9.   **A**  

10) <b>Input (R)</b>	4	3	5	8	6
<b>Output</b>	44	35	53	80	62

- A.  $R \times 9 + 8$       B.  $R \times 8 - 8$   
 C.  $R + 8$             D.  $R + 9$

10.   **A**



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (T)</b>	2	7	6	9	8
<b>Output</b>	5	10	9	12	11

- A.  $T + 3$                       B.  $T \times 8 + 6$   
 C.  $T \times 2 - 6$                 D.  $T \times 6$

2) 

<b>Input (V)</b>	8	7	6	9	2
<b>Output</b>	80	70	60	90	20

- A.  $V \times 10 + 6$                 B.  $V \times 10 - 10$   
 C.  $V \times 10$                       D.  $V + 10$

3) 

<b>Input (G)</b>	8	7	6	9	2
<b>Output</b>	46	39	32	53	4

- A.  $G \times 10$                       B.  $G \times 7 - 10$   
 C.  $G \times 10 + 10$                 D.  $G + 10$

4) 

<b>Input (Y)</b>	7	2	8	9	6
<b>Output</b>	72	22	82	92	62

- A.  $Y \times 10 + 2$                 B.  $Y \times 14 + 2$   
 C.  $Y \times 9 - 2$                  D.  $Y \times 10 - 3$

5) 

<b>Input (R)</b>	2	7	8	6	9
<b>Output</b>	12	27	30	24	33

- A.  $R \times 6$                         B.  $R \times 7 + 6$   
 C.  $R \times 3 + 6$                  D.  $R + 6$

6) 

<b>Input (F)</b>	8	6	7	2	9
<b>Output</b>	78	58	68	18	88

- A.  $F \times 11 - 2$                  B.  $F \times 10 + 1$   
 C.  $F + 10$                         D.  $F \times 10 - 2$

7) 

<b>Input (U)</b>	2	6	9	7	8
<b>Output</b>	7	11	14	12	13

- A.  $U + 5$                         B.  $U \times 7 - 10$   
 C.  $U + 10$                       D.  $U \times 5 + 13$

8) 

<b>Input (H)</b>	17	18	19	16	12
<b>Output</b>	7	8	9	6	2

- A.  $H + 10$                       B.  $H - 10$   
 C.  $H \times 10$                       D.  $H \times 14 + 9$

9) 

<b>Input (Q)</b>	2	9	6	7	8
<b>Output</b>	8	36	24	28	32

- A.  $Q \times 4 + 5$                 B.  $Q \times 4$   
 C.  $Q \times 9 + 6$                 D.  $Q + 4$

10) 

<b>Input (Z)</b>	13	15	16	9	14
<b>Output</b>	6	8	9	2	7

- A.  $Z \times 9 + 9$                 B.  $Z \times 7 + 8$   
 C.  $Z \times 7$                         D.  $Z - 7$

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 4. \_\_\_\_\_  
 5. \_\_\_\_\_  
 6. \_\_\_\_\_  
 7. \_\_\_\_\_  
 8. \_\_\_\_\_  
 9. \_\_\_\_\_  
 10. \_\_\_\_\_



Determine which rule best represents the expression the function machine used.

**Answers**

1)	<b>Input (T)</b>	2	7	6	9	8
	<b>Output</b>	5	10	9	12	11

- A.  $T + 3$                       B.  $T \times 8 + 6$   
 C.  $T \times 2 - 6$                 D.  $T \times 6$

1.   **A**  

2)	<b>Input (V)</b>	8	7	6	9	2
	<b>Output</b>	80	70	60	90	20

- A.  $V \times 10 + 6$                 B.  $V \times 10 - 10$   
 C.  $V \times 10$                       D.  $V + 10$

2.   **C**  

3)	<b>Input (G)</b>	8	7	6	9	2
	<b>Output</b>	46	39	32	53	4

- A.  $G \times 10$                       B.  $G \times 7 - 10$   
 C.  $G \times 10 + 10$                 D.  $G + 10$

3.   **B**  

4.   **A**  

4)	<b>Input (Y)</b>	7	2	8	9	6
	<b>Output</b>	72	22	82	92	62

- A.  $Y \times 10 + 2$                 B.  $Y \times 14 + 2$   
 C.  $Y \times 9 - 2$                  D.  $Y \times 10 - 3$

5.   **C**  

6.   **D**  

7.   **A**  

5)	<b>Input (R)</b>	2	7	8	6	9
	<b>Output</b>	12	27	30	24	33

- A.  $R \times 6$                         B.  $R \times 7 + 6$   
 C.  $R \times 3 + 6$                  D.  $R + 6$

8.   **B**  

9.   **B**  

6)	<b>Input (F)</b>	8	6	7	2	9
	<b>Output</b>	78	58	68	18	88

- A.  $F \times 11 - 2$                 B.  $F \times 10 + 1$   
 C.  $F + 10$                         D.  $F \times 10 - 2$

10.   **D**  

7)	<b>Input (U)</b>	2	6	9	7	8
	<b>Output</b>	7	11	14	12	13

- A.  $U + 5$                         B.  $U \times 7 - 10$   
 C.  $U + 10$                       D.  $U \times 5 + 13$

8)	<b>Input (H)</b>	17	18	19	16	12
	<b>Output</b>	7	8	9	6	2

- A.  $H + 10$                         B.  $H - 10$   
 C.  $H \times 10$                       D.  $H \times 14 + 9$

9)	<b>Input (Q)</b>	2	9	6	7	8
	<b>Output</b>	8	36	24	28	32

- A.  $Q \times 4 + 5$                 B.  $Q \times 4$   
 C.  $Q \times 9 + 6$                 D.  $Q + 4$

10)	<b>Input (Z)</b>	13	15	16	9	14
	<b>Output</b>	6	8	9	2	7

- A.  $Z \times 9 + 9$                 B.  $Z \times 7 + 8$   
 C.  $Z \times 7$                         D.  $Z - 7$





Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (T)</b>	9	4	2	10	7
<b>Output</b>	54	19	5	61	40

A.  $T \times 7 - 9$ 
B.  $T \times 9$   
C.  $T + 9$ 
D.  $T \times 7 - 11$

1. \_\_\_\_\_

2) 

<b>Input (P)</b>	4	2	10	9	7
<b>Output</b>	28	14	70	63	49

A.  $P \times 7$ 
B.  $P \times 7 + 7$   
C.  $P + 4$ 
D.  $P + 7$

2. \_\_\_\_\_

3) 

<b>Input (H)</b>	10	4	2	9	7
<b>Output</b>	102	42	22	92	72

A.  $H + 10$ 
B.  $H \times 10 - 4$   
C.  $H + 2$ 
D.  $H \times 10 + 2$

3. \_\_\_\_\_

4) 

<b>Input (G)</b>	7	2	9	10	4
<b>Output</b>	15	10	17	18	12

A.  $G \times 8 + 4$ 
B.  $G \times 11 - 2$   
C.  $G \times 8 - 1$ 
D.  $G + 8$

4. \_\_\_\_\_

5) 

<b>Input (L)</b>	2	10	4	9	7
<b>Output</b>	11	19	13	18	16

A.  $L + 9$ 
B.  $L \times 4$   
C.  $L \times 9 - 7$ 
D.  $L \times 9$

5. \_\_\_\_\_

6) 

<b>Input (Q)</b>	7	4	10	9	2
<b>Output</b>	73	46	100	91	28

A.  $Q \times 9 + 11$ 
B.  $Q \times 9$   
C.  $Q \times 9 + 10$ 
D.  $Q \times 12 - 10$

6. \_\_\_\_\_

7) 

<b>Input (M)</b>	14	7	12	15	9
<b>Output</b>	9	2	7	10	4

A.  $M \times 10$ 
B.  $M \times 10 + 10$   
C.  $M \times 7 - 10$ 
D.  $M - 5$

7. \_\_\_\_\_

8) 

<b>Input (J)</b>	2	4	10	7	9
<b>Output</b>	3	13	43	28	38

A.  $J \times 7$ 
B.  $J \times 5 + 9$   
C.  $J \times 4 - 7$ 
D.  $J \times 5 - 7$

8. \_\_\_\_\_

9) 

<b>Input (R)</b>	10	9	7	2	4
<b>Output</b>	90	81	63	18	36

A.  $R + 9$ 
B.  $R \times 11 - 2$   
C.  $R \times 9 - 5$ 
D.  $R \times 9$

9. \_\_\_\_\_

10) 

<b>Input (N)</b>	7	2	4	9	10
<b>Output</b>	23	13	17	27	29

A.  $N \times 2 + 9$ 
B.  $N \times 3 - 9$   
C.  $N \times 7 + 9$ 
D.  $N + 2$

10. \_\_\_\_\_



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (T)</b>	9	4	2	10	7
<b>Output</b>	54	19	5	61	40

A.  $T \times 7 - 9$ 
B.  $T \times 9$   
C.  $T + 9$ 
D.  $T \times 7 - 11$

1.   **A**  

2) 

<b>Input (P)</b>	4	2	10	9	7
<b>Output</b>	28	14	70	63	49

A.  $P \times 7$ 
B.  $P \times 7 + 7$   
C.  $P + 4$ 
D.  $P + 7$

2.   **A**  

3) 

<b>Input (H)</b>	10	4	2	9	7
<b>Output</b>	102	42	22	92	72

A.  $H + 10$ 
B.  $H \times 10 - 4$   
C.  $H + 2$ 
D.  $H \times 10 + 2$

3.   **D**  

4) 

<b>Input (G)</b>	7	2	9	10	4
<b>Output</b>	15	10	17	18	12

A.  $G \times 8 + 4$ 
B.  $G \times 11 - 2$   
C.  $G \times 8 - 1$ 
D.  $G + 8$

4.   **D**  

5) 

<b>Input (L)</b>	2	10	4	9	7
<b>Output</b>	11	19	13	18	16

A.  $L + 9$ 
B.  $L \times 4$   
C.  $L \times 9 - 7$ 
D.  $L \times 9$

5.   **A**  

6) 

<b>Input (Q)</b>	7	4	10	9	2
<b>Output</b>	73	46	100	91	28

A.  $Q \times 9 + 11$ 
B.  $Q \times 9$   
C.  $Q \times 9 + 10$ 
D.  $Q \times 12 - 10$

6.   **C**  

7) 

<b>Input (M)</b>	14	7	12	15	9
<b>Output</b>	9	2	7	10	4

A.  $M \times 10$ 
B.  $M \times 10 + 10$   
C.  $M \times 7 - 10$ 
D.  $M - 5$

7.   **D**  

8) 

<b>Input (J)</b>	2	4	10	7	9
<b>Output</b>	3	13	43	28	38

A.  $J \times 7$ 
B.  $J \times 5 + 9$   
C.  $J \times 4 - 7$ 
D.  $J \times 5 - 7$

8.   **D**  

9) 

<b>Input (R)</b>	10	9	7	2	4
<b>Output</b>	90	81	63	18	36

A.  $R + 9$ 
B.  $R \times 11 - 2$   
C.  $R \times 9 - 5$ 
D.  $R \times 9$

9.   **D**  

10) 

<b>Input (N)</b>	7	2	4	9	10
<b>Output</b>	23	13	17	27	29

A.  $N \times 2 + 9$ 
B.  $N \times 3 - 9$   
C.  $N \times 7 + 9$ 
D.  $N + 2$

10.   **A**



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (Z)</b>	9	5	7	2	10
<b>Output</b>	71	43	57	22	78

A.  $Z \times 6 - 8$ 
B.  $Z \times 7 - 11$   
C.  $Z \times 7 + 8$ 
D.  $Z + 8$

1. \_\_\_\_\_

2) 

<b>Input (Q)</b>	9	5	7	2	10
<b>Output</b>	12	8	10	5	13

A.  $Q + 4$ 
B.  $Q \times 3 + 3$   
C.  $Q \times 3$ 
D.  $Q + 3$

2. \_\_\_\_\_

3) 

<b>Input (V)</b>	2	5	10	7	9
<b>Output</b>	6	27	62	41	55

A.  $V \times 7 + 10$ 
B.  $V \times 7 - 8$   
C.  $V \times 8$ 
D.  $V \times 7 - 7$

3. \_\_\_\_\_

4) 

<b>Input (Y)</b>	5	7	2	10	9
<b>Output</b>	22	28	13	37	34

A.  $Y + 7$ 
B.  $Y \times 3 - 6$   
C.  $Y \times 7$ 
D.  $Y \times 3 + 7$

4. \_\_\_\_\_

5) 

<b>Input (M)</b>	7	5	2	9	10
<b>Output</b>	34	26	14	42	46

A.  $M \times 4 + 7$ 
B.  $M \times 4 + 6$   
C.  $M + 4$ 
D.  $M \times 6$

5. \_\_\_\_\_

6) 

<b>Input (P)</b>	7	2	9	10	5
<b>Output</b>	55	10	73	82	37

A.  $P + 8$ 
B.  $P \times 9$   
C.  $P \times 9 - 8$ 
D.  $P \times 9 - 10$

6. \_\_\_\_\_

7) 

<b>Input (K)</b>	2	10	7	9	5
<b>Output</b>	12	20	17	19	15

A.  $K + 10$ 
B.  $K \times 13 - 4$   
C.  $K \times 4$ 
D.  $K \times 13 + 4$

7. \_\_\_\_\_

8) 

<b>Input (H)</b>	20	12	15	19	17
<b>Output</b>	10	2	5	9	7

A.  $H \times 10 - 5$ 
B.  $H + 10$   
C.  $H \times 11 - 2$ 
D.  $H - 10$

8. \_\_\_\_\_

9) 

<b>Input (G)</b>	7	2	10	5	9
<b>Output</b>	14	4	20	10	18

A.  $G \times 2 - 6$ 
B.  $G \times 2 + 4$   
C.  $G \times 2$ 
D.  $G \times 1 - 3$

9. \_\_\_\_\_

10) 

<b>Input (L)</b>	20	12	17	15	19
<b>Output</b>	10	2	7	5	9

A.  $L - 10$ 
B.  $L \times 13 - 2$   
C.  $L + 10$ 
D.  $L \times 10 - 5$

10. \_\_\_\_\_



Determine which rule best represents the expression the function machine used.

**Answers**

1) 

<b>Input (Z)</b>	9	5	7	2	10
<b>Output</b>	71	43	57	22	78

A.  $Z \times 6 - 8$ 
B.  $Z \times 7 - 11$   
C.  $Z \times 7 + 8$ 
D.  $Z + 8$

1.     **C**    

2) 

<b>Input (Q)</b>	9	5	7	2	10
<b>Output</b>	12	8	10	5	13

A.  $Q + 4$ 
B.  $Q \times 3 + 3$   
C.  $Q \times 3$ 
D.  $Q + 3$

2.     **D**    

3) 

<b>Input (V)</b>	2	5	10	7	9
<b>Output</b>	6	27	62	41	55

A.  $V \times 7 + 10$ 
B.  $V \times 7 - 8$   
C.  $V \times 8$ 
D.  $V \times 7 - 7$

3.     **B**    

4) 

<b>Input (Y)</b>	5	7	2	10	9
<b>Output</b>	22	28	13	37	34

A.  $Y + 7$ 
B.  $Y \times 3 - 6$   
C.  $Y \times 7$ 
D.  $Y \times 3 + 7$

4.     **D**    

5) 

<b>Input (M)</b>	7	5	2	9	10
<b>Output</b>	34	26	14	42	46

A.  $M \times 4 + 7$ 
B.  $M \times 4 + 6$   
C.  $M + 4$ 
D.  $M \times 6$

5.     **B**    

6) 

<b>Input (P)</b>	7	2	9	10	5
<b>Output</b>	55	10	73	82	37

A.  $P + 8$ 
B.  $P \times 9$   
C.  $P \times 9 - 8$ 
D.  $P \times 9 - 10$

6.     **C**    

7) 

<b>Input (K)</b>	2	10	7	9	5
<b>Output</b>	12	20	17	19	15

A.  $K + 10$ 
B.  $K \times 13 - 4$   
C.  $K \times 4$ 
D.  $K \times 13 + 4$

7.     **A**    

8) 

<b>Input (H)</b>	20	12	15	19	17
<b>Output</b>	10	2	5	9	7

A.  $H \times 10 - 5$ 
B.  $H + 10$   
C.  $H \times 11 - 2$ 
D.  $H - 10$

8.     **D**    

9) 

<b>Input (G)</b>	7	2	10	5	9
<b>Output</b>	14	4	20	10	18

A.  $G \times 2 - 6$ 
B.  $G \times 2 + 4$   
C.  $G \times 2$ 
D.  $G \times 1 - 3$

9.     **C**    

10) 

<b>Input (L)</b>	20	12	17	15	19
<b>Output</b>	10	2	7	5	9

A.  $L - 10$ 
B.  $L \times 13 - 2$   
C.  $L + 10$ 
D.  $L \times 10 - 5$

10.     **A**