



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**