



## Finding Rule w/ Two Steps

Name: \_\_\_\_\_

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

Answers

- 1) 

Input (G)	8	7	3	9	4
Output	25	23	15	27	17

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

Input (F)	9	7	4	3	8
Output	11	9	6	5	10

 A.  $F \times 2 + 12$       B.  $F + 2$   
 C.  $F \times 7 + 10$       D.  $F \times 2$
- 3) 

Input (J)	3	8	4	9	7
Output	10	20	12	22	18

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

Input (K)	4	3	8	7	9
Output	24	18	48	42	54

 A.  $K \times 3$       B.  $K \times 8 - 3$   
 C.  $K \times 6$       D.  $K + 3$
- 5) 

Input (V)	7	9	3	8	4
Output	23	27	15	25	17

 A.  $V \times 9$       B.  $V \times 3 - 9$   
 C.  $V \times 2 + 9$       D.  $V + 2$
- 6) 

Input (Z)	15	14	10	9	13
Output	9	8	4	3	7

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

Input (T)	3	8	4	9	7
Output	5	10	6	11	9

 A.  $T \times 5 - 9$       B.  $T + 2$   
 C.  $T \times 5 + 9$       D.  $T \times 9$
- 8) 

Input (Q)	4	3	9	7	8
Output	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) 

Input (M)	4	3	7	9	8
Output	40	30	70	90	80

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

Input (H)	18	17	14	13	19
Output	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. \_\_\_\_\_



# Finding Rule w/ Two Steps

Name: **Answer Key**

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

**Answers**

1)	<table border="1"> <thead> <tr> <th>Input (G)</th><th>8</th><th>7</th><th>3</th><th>9</th><th>4</th></tr> </thead> <tbody> <tr> <td>Output</td><td>25</td><td>23</td><td>15</td><td>27</td><td>17</td></tr> </tbody> </table>	Input (G)	8	7	3	9	4	Output	25	23	15	27	17	A. $G \times 2 + 9$	B. $G \times 9$
Input (G)	8	7	3	9	4										
Output	25	23	15	27	17										
		C. $G \times 2 + 12$	D. $G \times 2$												

2)	<table border="1"> <thead> <tr> <th>Input (F)</th><th>9</th><th>7</th><th>4</th><th>3</th><th>8</th></tr> </thead> <tbody> <tr> <td>Output</td><td>11</td><td>9</td><td>6</td><td>5</td><td>10</td></tr> </tbody> </table>	Input (F)	9	7	4	3	8	Output	11	9	6	5	10	A. $F \times 2 + 12$	B. $F + 2$
Input (F)	9	7	4	3	8										
Output	11	9	6	5	10										
		C. $F \times 7 + 10$	D. $F \times 2$												

3)	<table border="1"> <thead> <tr> <th>Input (J)</th><th>3</th><th>8</th><th>4</th><th>9</th><th>7</th></tr> </thead> <tbody> <tr> <td>Output</td><td>10</td><td>20</td><td>12</td><td>22</td><td>18</td></tr> </tbody> </table>	Input (J)	3	8	4	9	7	Output	10	20	12	22	18	A. $J + 2$	B. $J \times 2 + 7$
Input (J)	3	8	4	9	7										
Output	10	20	12	22	18										
		C. $J \times 4$	D. $J \times 2 + 4$												

4)	<table border="1"> <thead> <tr> <th>Input (K)</th><th>4</th><th>3</th><th>8</th><th>7</th><th>9</th></tr> </thead> <tbody> <tr> <td>Output</td><td>24</td><td>18</td><td>48</td><td>42</td><td>54</td></tr> </tbody> </table>	Input (K)	4	3	8	7	9	Output	24	18	48	42	54	A. $K \times 3$	B. $K \times 8 - 3$
Input (K)	4	3	8	7	9										
Output	24	18	48	42	54										
		C. $K \times 6$	D. $K + 3$												

5)	<table border="1"> <thead> <tr> <th>Input (V)</th><th>7</th><th>9</th><th>3</th><th>8</th><th>4</th></tr> </thead> <tbody> <tr> <td>Output</td><td>23</td><td>27</td><td>15</td><td>25</td><td>17</td></tr> </tbody> </table>	Input (V)	7	9	3	8	4	Output	23	27	15	25	17	A. $V \times 9$	B. $V \times 3 - 9$
Input (V)	7	9	3	8	4										
Output	23	27	15	25	17										
		C. $V \times 2 + 9$	D. $V + 2$												

6)	<table border="1"> <thead> <tr> <th>Input (Z)</th><th>15</th><th>14</th><th>10</th><th>9</th><th>13</th></tr> </thead> <tbody> <tr> <td>Output</td><td>9</td><td>8</td><td>4</td><td>3</td><td>7</td></tr> </tbody> </table>	Input (Z)	15	14	10	9	13	Output	9	8	4	3	7	A. $Z \times 9$	B. $Z - 6$
Input (Z)	15	14	10	9	13										
Output	9	8	4	3	7										
		C. $Z + 6$	D. $Z \times 6$												

7)	<table border="1"> <thead> <tr> <th>Input (T)</th><th>3</th><th>8</th><th>4</th><th>9</th><th>7</th></tr> </thead> <tbody> <tr> <td>Output</td><td>5</td><td>10</td><td>6</td><td>11</td><td>9</td></tr> </tbody> </table>	Input (T)	3	8	4	9	7	Output	5	10	6	11	9	A. $T \times 5 - 9$	B. $T + 2$
Input (T)	3	8	4	9	7										
Output	5	10	6	11	9										
		C. $T \times 5 + 9$	D. $T \times 9$												

8)	<table border="1"> <thead> <tr> <th>Input (Q)</th><th>4</th><th>3</th><th>9</th><th>7</th><th>8</th></tr> </thead> <tbody> <tr> <td>Output</td><td>11</td><td>6</td><td>36</td><td>26</td><td>31</td></tr> </tbody> </table>	Input (Q)	4	3	9	7	8	Output	11	6	36	26	31	A. $Q \times 9$	B. $Q \times 6 - 9$
Input (Q)	4	3	9	7	8										
Output	11	6	36	26	31										
		C. $Q \times 5 - 10$	D. $Q \times 5 - 9$												

9)	<table border="1"> <thead> <tr> <th>Input (M)</th><th>4</th><th>3</th><th>7</th><th>9</th><th>8</th></tr> </thead> <tbody> <tr> <td>Output</td><td>40</td><td>30</td><td>70</td><td>90</td><td>80</td></tr> </tbody> </table>	Input (M)	4	3	7	9	8	Output	40	30	70	90	80	A. $M \times 12 - 7$	B. $M \times 10$
Input (M)	4	3	7	9	8										
Output	40	30	70	90	80										
		C. $M \times 10 - 8$	D. $M + 10$												

10)	<table border="1"> <thead> <tr> <th>Input (H)</th><th>18</th><th>17</th><th>14</th><th>13</th><th>19</th></tr> </thead> <tbody> <tr> <td>Output</td><td>8</td><td>7</td><td>4</td><td>3</td><td>9</td></tr> </tbody> </table>	Input (H)	18	17	14	13	19	Output	8	7	4	3	9	A. $H \times 9$	B. $H - 10$
Input (H)	18	17	14	13	19										
Output	8	7	4	3	9										
		C. $H + 9$	D. $H \times 12 - 9$												

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