Determine which number sentence best matches the function machine.

1) \[
\begin{array}{|c|c|}
\hline
\text{In} & \text{Out} \\
\hline
78 & 98 \\
24 & 44 \\
60 & 80 \\
51 & 71 \\
40 & 60 \\
\hline
\end{array}
\]
If each input is 'Q' which rule could the function machine be using?
A. Q + 20  B. Q ÷ 20  C. Q + 6  D. Q × 7

2) \[
\begin{array}{|c|c|}
\hline
\text{In} & \text{Out} \\
\hline
83 & 71 \\
102 & 90 \\
57 & 45 \\
60 & 48 \\
63 & 51 \\
\hline
\end{array}
\]
If each input is 'Q' which rule could the function machine be using?
A. Q ÷ 6  B. Q - 7  C. Q ÷ 12  D. Q - 12

3) \[
\begin{array}{|c|c|}
\hline
\text{In} & \text{Out} \\
\hline
48 & 6 \\
64 & 8 \\
80 & 10 \\
24 & 3 \\
40 & 5 \\
\hline
\end{array}
\]
If each input is 'Q' which rule could the function machine be using?
A. Q + 8  B. Q ÷ 8  C. Q ÷ 10  D. Q - 8

4) \[
\begin{array}{|c|c|}
\hline
\text{In} & \text{Out} \\
\hline
70 & 69 \\
21 & 20 \\
26 & 25 \\
11 & 10 \\
29 & 28 \\
\hline
\end{array}
\]
If each input is 'Q' which rule could the function machine be using?
A. Q + 1  B. Q ÷ 1  C. Q - 1  D. Q - 8

5) \[
\begin{array}{|c|c|}
\hline
\text{In} & \text{Out} \\
\hline
45 & 5 \\
90 & 10 \\
81 & 9 \\
27 & 3 \\
72 & 8 \\
\hline
\end{array}
\]
If each input is 'Q' which rule could the function machine be using?
A. Q ÷ 9  B. Q ÷ 2  C. Q - 8  D. Q × 9

6) \[
\begin{array}{|c|c|}
\hline
\text{In} & \text{Out} \\
\hline
5 & 20 \\
4 & 16 \\
6 & 24 \\
10 & 40 \\
7 & 28 \\
\hline
\end{array}
\]
If each input is 'Q' which rule could the function machine be using?
A. Q ÷ 4  B. Q × 10  C. Q + 7  D. Q × 4

7) \[
\begin{array}{|c|c|}
\hline
\text{In} & \text{Out} \\
\hline
28 & 42 \\
24 & 38 \\
92 & 106 \\
67 & 81 \\
48 & 62 \\
\hline
\end{array}
\]
If each input is 'Q' which rule could the function machine be using?
A. Q ÷ 14  B. Q + 5  C. Q + 14  D. Q × 6

8) \[
\begin{array}{|c|c|}
\hline
\text{In} & \text{Out} \\
\hline
5 & 18 \\
78 & 91 \\
4 & 17 \\
56 & 69 \\
64 & 77 \\
\hline
\end{array}
\]
If each input is 'Q' which rule could the function machine be using?
A. Q - 13  B. Q + 13  C. Q × 8  D. Q + 3

9) \[
\begin{array}{|c|c|}
\hline
\text{In} & \text{Out} \\
\hline
10 & 30 \\
6 & 18 \\
8 & 24 \\
2 & 6 \\
5 & 15 \\
\hline
\end{array}
\]
If each input is 'Q' which rule could the function machine be using?
A. Q + 3  B. Q - 3  C. Q × 3  D. Q + 7

Answers

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

Math
www.CommonCoreSheets.com
### Function Machine - Determining Rule

Determine which number sentence best matches the function machine.

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If each input is 'Q' which rule could the function machine be using?
A. Q + 20  B. Q ÷ 20  C. Q + 6  D. Q × 7

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If each input is 'Q' which rule could the function machine be using?
A. Q ÷ 6  B. Q - 7  C. Q ÷ 12  D. Q - 12

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If each input is 'Q' which rule could the function machine be using?
A. Q + 8  B. Q ÷ 8  C. Q ÷ 10  D. Q - 8

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If each input is 'Q' which rule could the function machine be using?
A. Q ÷ 6  B. Q - 7  C. Q ÷ 12  D. Q - 12

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<tr>
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<td>28</td>
</tr>
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If each input is 'Q' which rule could the function machine be using?
A. Q + 1  B. Q ÷ 1  C. Q - 1  D. Q - 8

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If each input is 'Q' which rule could the function machine be using?
A. Q ÷ 9  B. Q ÷ 2  C. Q - 8  D. Q × 9

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<td>28</td>
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If each input is 'Q' which rule could the function machine be using?
A. Q ÷ 4  B. Q × 10  C. Q + 7  D. Q × 4

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If each input is 'Q' which rule could the function machine be using?
A. Q ÷ 14  B. Q + 5  C. Q + 14  D. Q × 6

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If each input is 'Q' which rule could the function machine be using?
A. Q - 13  B. Q + 13  C. Q × 8  D. Q + 3

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</tr>
<tr>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
</tr>
</tbody>
</table>

If each input is 'Q' which rule could the function machine be using?
A. Q + 3  B. Q - 3  C. Q × 3  D. Q + 7

### Answers

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