Function Machine - Determining Rule

Determine which number sentence best matches the function machine.

1) | In | Out |
---|----|-----|
 63 | 7  |
 90 | 10 |
 72 | 8  |
 45 | 5  |
 81 | 9  |

If each input is 'Q' which rule could the function machine be using?  
A. Q - 9  
B. Q - 8  
C. Q ÷ 9  
D. Q - 6

2) | In | Out |
---|----|-----|
 89 | 84 |
 33 | 28 |
 96 | 91 |
102 | 97 |
 19 | 14 |

If each input is 'Q' which rule could the function machine be using?  
A. Q × 5  
B. Q + 5  
C. Q ÷ 8  
D. Q - 5

3) | In | Out |
---|----|-----|
 95 | 113|
 43 | 61 |
 86 | 104|
 26 | 44 |
 70 | 88 |

If each input is 'Q' which rule could the function machine be using?  
A. Q - 18  
B. Q + 18  
C. Q ÷ 18  
D. Q × 18

4) | In | Out |
---|----|-----|
 69 | 68 |
 60 | 59 |
 68 | 67 |
 84 | 83 |
 37 | 36 |

If each input is 'Q' which rule could the function machine be using?  
A. Q ÷ 6  
B. Q - 8  
C. Q - 1  
D. Q ÷ 8

5) | In | Out |
---|----|-----|
 7  | 42 |
10  | 60 |
 6  | 36 |
 9  | 54 |
 4  | 24 |

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

6) | In | Out |
---|----|-----|
 48 | 8  |
 30 | 5  |
 18 | 3  |
 36 | 6  |
 60 | 10 |

If each input is 'Q' which rule could the function machine be using?  
A. Q - 6  
B. Q ÷ 6  
C. Q - 10  
D. Q × 6

7) | In | Out |
---|----|-----|
 87 | 105|
 72 | 90 |
 50 | 68 |
 67 | 85 |
 81 | 99 |

If each input is 'Q' which rule could the function machine be using?  
A. Q + 10  
B. Q + 18  
C. Q + 5  
D. Q - 18

8) | In | Out |
---|----|-----|
 31 | 51 |
 86 | 106|
 1  | 21 |
 27 | 47 |
 17 | 37 |

If each input is 'Q' which rule could the function machine be using?  
A. Q - 20  
B. Q ÷ 20  
C. Q + 20  
D. Q × 10

9) | In | Out |
---|----|-----|
 7  | 35 |
 4  | 20 |
 6  | 30 |
 5  | 25 |
 9  | 45 |

If each input is 'Q' which rule could the function machine be using?  
A. Q + 9  
B. Q ÷ 5  
C. Q × 5  
D. Q - 5

Answers:
1. __________
2. __________
3. __________
4. __________
5. __________
6. __________
7. __________
8. __________
9. __________
## 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 - 9  
B. Q - 8  
C. Q \div 9  
D. Q - 6

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If each input is 'Q' which rule could the function machine be using?  
A. Q \times 5  
B. Q + 5  
C. Q \div 8  
D. Q - 5

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If each input is 'Q' which rule could the function machine be using?  
A. Q - 18  
B. Q + 18  
C. Q \div 18  
D. Q \times 18

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If each input is 'Q' which rule could the function machine be using?  
A. Q \div 6  
B. Q - 8  
C. Q - 1  
D. Q \div 8

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If each input is 'Q' which rule could the function machine be using?  
A. Q \div 6  
B. Q \times 6  
C. Q - 6  
D. Q + 6

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If each input is 'Q' which rule could the function machine be using?  
A. Q - 6  
B. Q \div 6  
C. Q - 10  
D. Q \times 6

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If each input is 'Q' which rule could the function machine be using?  
A. Q + 10  
B. Q + 18  
C. Q + 5  
D. Q - 18

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If each input is 'Q' which rule could the function machine be using?  
A. Q - 20  
B. Q \div 20  
C. Q + 20  
D. Q \times 10

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If each input is 'Q' which rule could the function machine be using?  
A. Q + 9  
B. Q \div 5  
C. Q \times 5  
D. Q - 5

**Answers**

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