Function Machines - Filling in Missing Digit Name:

**Determine the number that correctly fills in the blank in the function machine.**

1)

| Input | Output |
|---|---|
| 5 | 45 |
| 7 | 63 |
| 2 | |
| 9 | 81 |
| 4 | 36 |

2)

| Input | Output |
|---|---|
| 6 | 3 |
| 10 | 7 |
| 11 | 8 |
| 12 | 9 |
| 8 | |

3)

| Input | Output |
|---|---|
| | 3 |
| 72 | 9 |
| 48 | 6 |
| 16 | 2 |
| 80 | 10 |

4)

| Input | Output |
|---|---|
| 8 | 48 |
| 3 | 18 |
| 7 | 42 |
| | 36 |
| 2 | 12 |

5)

| Input | Output |
|---|---|
| 5 | 10 |
| | 8 |
| 9 | 18 |
| 10 | 20 |
| 2 | 4 |

6)

| Input | Output |
|---|---|
| 5 | 14 |
| 3 | 12 |
| 6 | 15 |
| 4 | |
| 2 | 11 |

7)

| In | 16 | 10 | 18 | |
|---|---|---|---|---|
| Out | 8 | 2 | 10 | 9 |

8)

| In | 6 | | 10 | 4 |
|---|---|---|---|---|
| Out | 42 | 21 | 70 | 28 |

9)

| In | 11 | 8 | 7 | 4 |
|---|---|---|---|---|
| Out | 9 | | 5 | 2 |

10)

| In | | 6 | 2 | 8 |
|---|---|---|---|---|
| Out | 21 | 17 | 13 | 19 |

11)

| In | 8 | | 2 | 3 |
|---|---|---|---|---|
| Out | 16 | 13 | 10 | 11 |

12)

| In | 50 | 30 | 20 | 25 |
|---|---|---|---|---|
| Out | 10 | 6 | | 5 |

**Answers**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____



| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-10 | 92 | 83 | 75 | 67 | 58 | 50 | 42 | 33 | 25 | 17 |
| 11-12 | 8 | 0 | | | | | | | | |

Function Machines - Filling in Missing Digit Name: **Answer Key**

**Determine the number that correctly fills in the blank in the function machine.**

**1)**

| Input | Output |
|---|---|
| 5 | 45 |
| 7 | 63 |
| 2 | 18 |
| 9 | 81 |
| 4 | 36 |

Rule: Mult by 9

**2)**

| Input | Output |
|---|---|
| 6 | 3 |
| 10 | 7 |
| 11 | 8 |
| 12 | 9 |
| 8 | 5 |

Rule: Sub 3

**3)**

| Input | Output |
|---|---|
| 24 | 3 |
| 72 | 9 |
| 48 | 6 |
| 16 | 2 |
| 80 | 10 |

Rule: Div by 8

**4)**

| Input | Output |
|---|---|
| 8 | 48 |
| 3 | 18 |
| 7 | 42 |
| 6 | 36 |
| 2 | 12 |

Rule: Mult by 6

**5)**

| Input | Output |
|---|---|
| 5 | 10 |
| 4 | 8 |
| 9 | 18 |
| 10 | 20 |
| 2 | 4 |

Rule: Mult by 2

**6)**

| Input | Output |
|---|---|
| 5 | 14 |
| 3 | 12 |
| 6 | 15 |
| 4 | 13 |
| 2 | 11 |

Rule: Add 9

**7)**

| In | 16 | 10 | 18 | 17 |
|---|---|---|---|---|
| Out | 8 | 2 | 10 | 9 |

Rule: Sub 8

**8)**

| In | 6 | 3 | 10 | 4 |
|---|---|---|---|---|
| Out | 42 | 21 | 70 | 28 |

Rule: Mult by 7

**9)**

| In | 11 | 8 | 7 | 4 |
|---|---|---|---|---|
| Out | 9 | 6 | 5 | 2 |

Rule: Sub 2

**10)**

| In | 10 | 6 | 2 | 8 |
|---|---|---|---|---|
| Out | 21 | 17 | 13 | 19 |

Rule: Add 11

**11)**

| In | 8 | 5 | 2 | 3 |
|---|---|---|---|---|
| Out | 16 | 13 | 10 | 11 |

Rule: Add 8

**12)**

| In | 50 | 30 | 20 | 25 |
|---|---|---|---|---|
| Out | 10 | 6 | 4 | 5 |

Rule: Div by 5

## Answers

1. 18
2. 5
3. 24
4. 6
5. 4
6. 13
7. 17
8. 3
9. 6
10. 10
11. 5
12. 4



| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-10 | 92 | 83 | 75 | 67 | 58 | 50 | 42 | 33 | 25 | 17 |
| 11-12 | 8 | 0 | | | | | | | | |