## Practice: Guess More Rules

An In-Out table always has a rule to get from the In value $(x)$ to the Out $(\eta)$. For each of the following tables:

- Look for a pattern in the table.
- Try to figure out what the rule is to get from $x$ to $y$.
- Check to see whether the rule works for every case, and write in another pair of numbers that follows the rule.
- Write the rule in words.
- Write an equation for the rule.


## Example

| $x$ | $y$ |
| :---: | :---: |
| 3 | 15 |
| 4 | 20 |
| 5 | 25 |
| 12 | 60 |

Fill in the table.
The rule in words:
Multiply $x$ by five to get $y$
The equation:

$$
y=5 x
$$

Check your rule by reading it out loud. If you follow the rule, do the pairs of numbers work?

## Table 1

| $x$ | $y$ |
| :---: | :---: |
| 7 | 28 |
| 8 | 32 |
| 9 | 36 |
|  |  |

Fill in the table.
The rule in words:

The equation:

Table 2

| $x$ | $y$ |
| :---: | :---: |
| 3 | 24 |
| 5 | 40 |
| 6 | 48 |
|  |  |

Fill in the table.
The rule in words:

The equation:

Table 3

| $x$ | $y$ |
| :---: | :---: |
| 4 | 9 |
| 5 | 10 |
| 6 | 11 |
|  |  |

Fill in the table.
The rule in words:

The equation:

Table 4

| $x$ | $y$ |
| :---: | :---: |
| 6 | 5 |
| 8 | 7 |
| 13 | 12 |
|  |  |

Fill in the table.
The rule in words:

The equation:

Table 5

| $x$ | $y$ |
| :---: | :---: |
| 2 | 1.0 |
| 5 | 2.5 |
| 8 | 4.0 |
|  |  |

Fill in the table.
The rule in words:

The equation:

Table 6

| $x$ | $y$ |
| :---: | :---: |
| 1 | 4 |
| 2 | 7 |
| 3 | 10 |
| 4 | 13 |
|  |  |

Fill in the table.
The rule in words:

The equation:

Table 7

| $\boldsymbol{x}$ | $\boldsymbol{y}$ |
| :---: | :---: |
| 3 | 22 |
| 4 | 29 |
| 11 | 78 |
|  |  |

Fill in the table. The rule in words:

The equation:

The rules for the next three tables have a twist: $9 \mathrm{x} \boldsymbol{\mathrm { t }} \mathrm{tex}$


Table 8

| $x$ | $y$ |
| :---: | :---: |
| 1 | 1 |
| 3 | 9 |
| 7 | 49 |
|  |  |

Fill in the table.
The rule in words:

The equation:

Table 9

| $x$ | $y$ |
| :---: | :---: |
| 2 | 6 |
| 5 | 27 |
| 6 | 38 |
| 10 | 102 |
|  |  |

Fill in the table.
The rule in words:

The equation:

Table 10

| $x$ | $y$ |
| :---: | :---: |
| 1 | 19 |
| 2 | 18 |
| 6 | 14 |
| 7 | 13 |
|  |  |

Fill in the table. The rule in words:

The equation:

## Practice: Fill In the Values

Figure out the rule for the following tables and fill in the missing values.
Example

| $x$ | $y$ |
| :---: | :---: |
| 60 | 30 |
| 56 | 28 |
| 42 | 21 |
| 100 | 50 |
| 200 | 100 |

1. 

| $x$ | $y$ |
| :---: | :---: |
| 1 | 7 |
| 2 | 9 |
| 3 | 11 |
| 4 | $\cdot$ |
| 5 |  |

2. 

| $x$ | $y$ |
| :---: | :---: |
| 12 | 13 |
| 11 | 14 |
| 16 | 9 |
| 4 |  |
|  | 20 |

3. 

| $x$ | $y$ |
| :---: | :---: |
| 1 | 2 |
| 2 | 5 |
| 3 | 8 |
| 10 |  |
|  | 98 |

5. 

| $x$ | $y$ |
| :---: | :---: |
| 2 |  |
| 3 | 8 |
|  | 15 |
| 10 | 99 |
| 12 |  |

4. 

| $x$ | $y$ |
| :---: | :---: |
| 100 | 5 |
| 101 | 6 |
| 102 | 7 |
| 200 |  |
|  | 200 |

6. 

| $x$ | $y$ |
| :---: | :---: |
| 5 | 20 |
| 10 | 95 |
| 12 | 139 |
| 15 |  |
| 20 |  |

