**Input and Output Tables**

Complete the tables.

a. | Input | Output |
---|---|---|
23 | 47 |
34 |
45 |
---|---|---|
rule: add 24 |

b. | Input | Output |
---|---|---|
56 |
|
27 |
---|---|---|
rule: subtract 18 |

c.

| Input | Output |
---|---|
7 |
13 |
31 |
---|---|
rule: |

d. | Input | Output |
---|---|---|
65 |
87 |
---|---|---|
rule: |

Complete the table and answer the questions.

e. | Input | Output |
---|---|---|
19 | 73 |
22 | 76 |
39 |
---|---|---|
108 |
120 |
135 |
---|---|---|
What is the rule for this table? ________________
Explain how you found the rule.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Now try this: On a separate sheet of paper, make your own in-out table. Have a friend find the rule and fill in the missing boxes.
### ANSWER KEY

#### Input and Output Tables

Complete the tables.

**a.**
<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>47</td>
</tr>
<tr>
<td>34</td>
<td>58</td>
</tr>
<tr>
<td>45</td>
<td>69</td>
</tr>
<tr>
<td>46</td>
<td>70</td>
</tr>
</tbody>
</table>

Rule: add 24

**b.**
<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>38</td>
</tr>
<tr>
<td>48</td>
<td>30</td>
</tr>
<tr>
<td>27</td>
<td>9</td>
</tr>
<tr>
<td>22</td>
<td>4</td>
</tr>
</tbody>
</table>

Rule: subtract 18

**c.**

Complete the table and answer the questions.

**e.**
<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>73</td>
</tr>
<tr>
<td>22</td>
<td>76</td>
</tr>
<tr>
<td>39</td>
<td></td>
</tr>
<tr>
<td>108</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td></td>
</tr>
<tr>
<td>135</td>
<td></td>
</tr>
</tbody>
</table>

What is the rule for this table? **add 54**

Explain how you found the rule.

First, observe whether the number goes up or down in the output column. Since it goes up, you know you're adding. Then subtract to find the difference between 73 and 19.

Now try this: On a separate sheet of paper, make your own in-out table. Have a friend find the rule and fill in the missing boxes.