Warm up: If a=1, b=-2 and c=3 solve:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

1-4. Write a rule for each Input/Output table. For #1 and 4, the rules will be in words. For #2 and 3, Give an algebraic expression for the rule. Fill in blanks on the tables.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Input | Output |  |  | Input | Output |
|  |  | LWC |  |  | 2 | -6 |
|  |  | LBT |  |  | 5 | -15 |
|  |  | SBS |  |  | 0 | 0 |
|  |  |  |  |  | 13 |  |
|  |  | SWT |  |  | -7 |  |
|  |  |  |  |  |  | -30 |
|  |  | LWT |  |  |  | 35 |
| Rule: | | |  |  | Rule: |  |
|  | Input | Output |  |  | Input | Output |
|  | 1 | 5 |  |  | Creative | 9 |
|  | 3 | 11 |  |  | Listen | 7 |
|  | 7 | 23 |  |  | Ripe | 5 |
|  | 10 | 32 |  |  | Bottle | 7 |
|  | -2 | -4 |  |  | Hypocritical |  |
|  | -5 |  |  |  |  | 3 |
|  |  | 2 |  |  |  | 8 |
|  |  | 3 |  |  | Viper |  |
| Rule: | | |  | Rule: | | |
|  | | |  |  | | |

1. Some relations are *one-to-one* meaning that each input/output pairing is unique. Another way to think about this is that each input and output value can be used only once. Indicate whether each of the relations in #1-4 is or is not a one-to-one relationship by writing Yes or No in the blanks.

#1\_\_\_\_ #2\_\_\_\_ #3\_\_\_\_ #4\_\_\_\_

1. Write a rule for a relation. Then create an input/output table for your rule.

Rule:

|  |  |
| --- | --- |
| Input | Output |
|  |  |
|  |  |
|  |  |
|  |  |

1. Is your relation a one-to-one relationship?