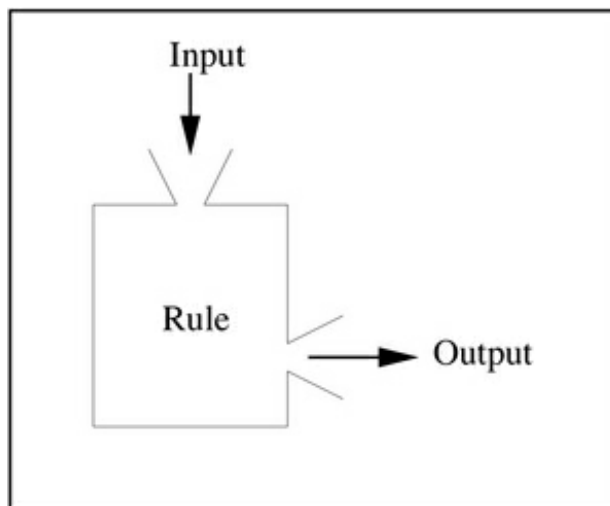# 8.F Function Rules

Task

A function machine takes an input, and based on some rule produces an output.

The tables below show some input-output pairs for different functions. For each table, describe a function rule in words that would produce the given outputs from the corresponding inputs. Then fill in the rest of the table values as inputs and outputs which are consistent with that rule.

a. Input values can be any English word. Output values are letters from the English alphabet.

input	cat	house	you	stem			
output	t	e	u		z		

b. Input values can be any rational number. Output values can be any rational number.

input	2	5	−1.53	0	−4		
output	7	10	3.47	5		8	

c. Input values can be any whole number. Output values can be any whole number.

input	1	2	3	4	5	6	7
output	2	1	4				

d. Input values can be any whole number between 1 and 365. Output values can be any month of the year.

input	25	365	35	95	330	66	
output	January	December	February	April	November		October

For at least one of the tables, describe a second rule which fits the given pairs but ultimately produces different pairs than the first rule for the rest of the table.