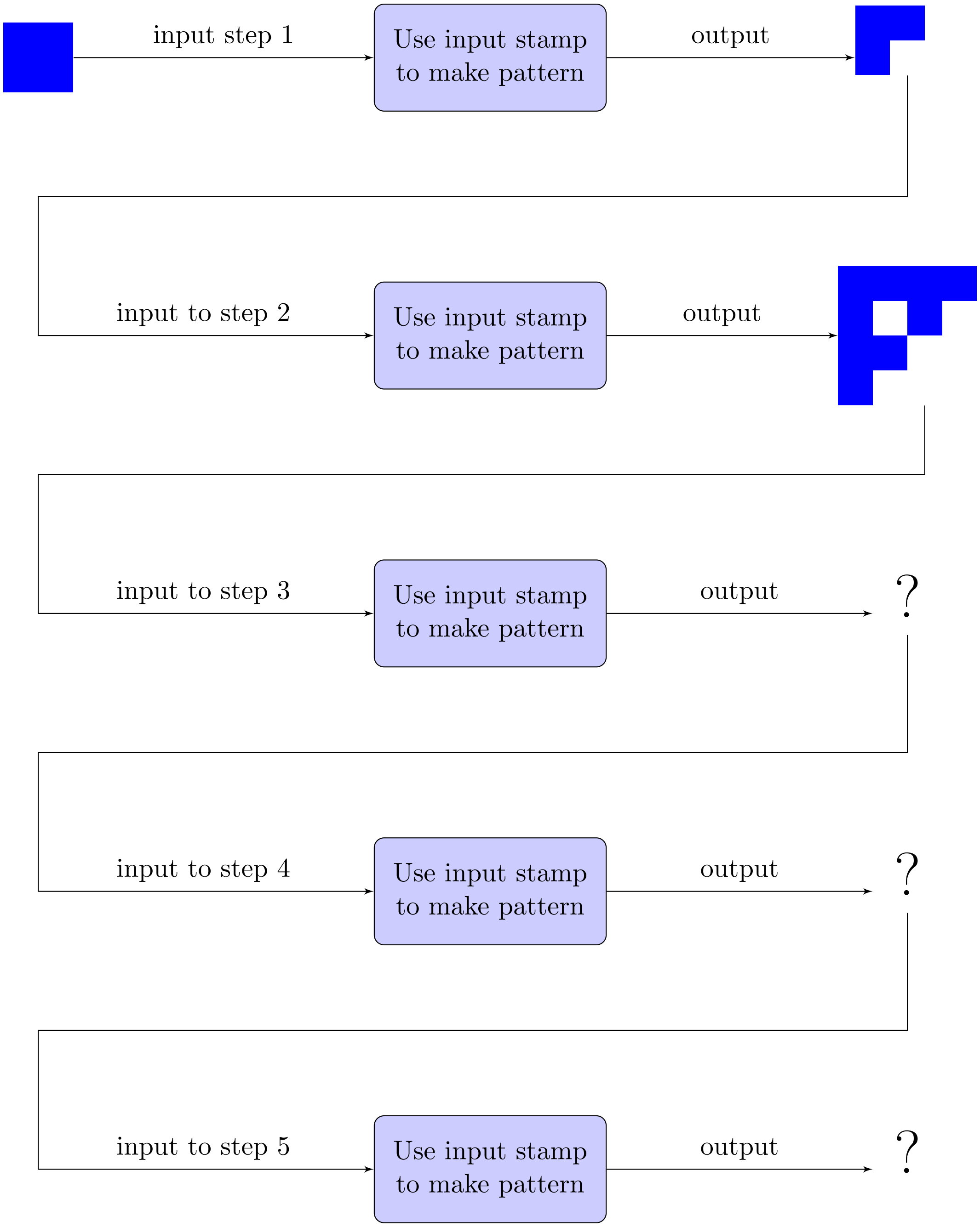
Lace 03

This is a "paper and pencil" activity where you fill in squares on grids that are provided in this document. The overview of the algorithm is shown below, and consists of five steps. The input to each step is a *stamp* having a particular *shape*. The *stamp shape* used in step 1 is a square. The stamp shape used in step 2 has an upper-left corner shape.

In general, the stamp shape that is input to a given step is the stamp shape used to create the pattern for that step. The pattern that is created then becomes the *stamp shape* that is the input stamp shape used for the next step in the algorithm. A diagram of the algorithm is shown below.


input step 1
Use input stamp to make pattern
output
input to step 2
Use input stamp to make pattern
output
input to step 3
Use input stamp to make pattern
output
?
input to step 4
Use input stamp to make pattern
output
?
input to step 5
Use input stamp to make pattern
output
?

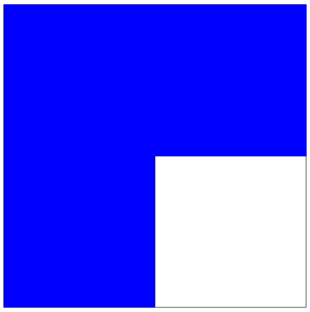
Step 1

Matrix size	=	2x2
Stamp shape	=	🟦
Pattern	=	upper-left corner

Place the stamp shape (i.e., in this case a square) in each of the cells containing the words *stamp here*.

stamp here	stamp here
stamp here	

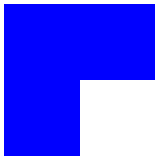
The result is the following shape, which will be the *stamp shape* that is the output of step 1. This shape will be the stamp shape that is input to step 2.



Step 2

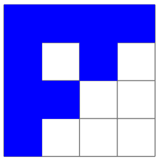
Matrix size = 4x4

Stamp shape =



Pattern = upper-left corner

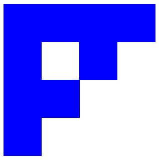
The result of placing the stamp shape in our *upper-left corner* pattern is the following shape, which is the *stamp shape* that is the output of step 2. This shape will be the stamp shape that is input to step 3.



Step 3

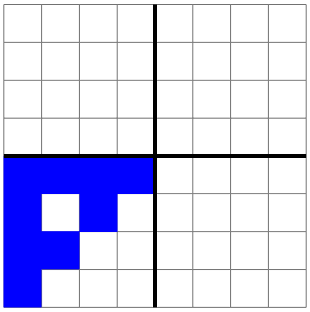
Matrix size = 8x8

Stamp shape =



Pattern = upper-left corner

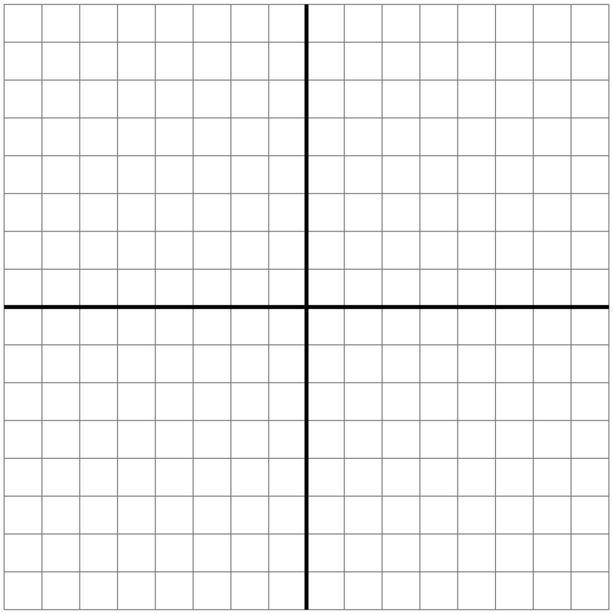
Can you fill in the rest to produce the *stamp shape* that is the output of step 3?



Step 4

Matrix size	=	16x16
Stamp shape	=	the stamp shape that is the output of step 3
Pattern	=	upper-left corner

Using the output from step 3 as your stamp shape, fill in the rest to produce the *stamp shape* that is the output of step 4.



Step 5

Matrix size	=	32x32
Stamp shape	=	the stamp shape that is the output of step 4
Pattern	=	upper-left

Using the output from step 4 as your stamp shape, fill in the rest to produce the *stamp shape* that is the output of step 5.