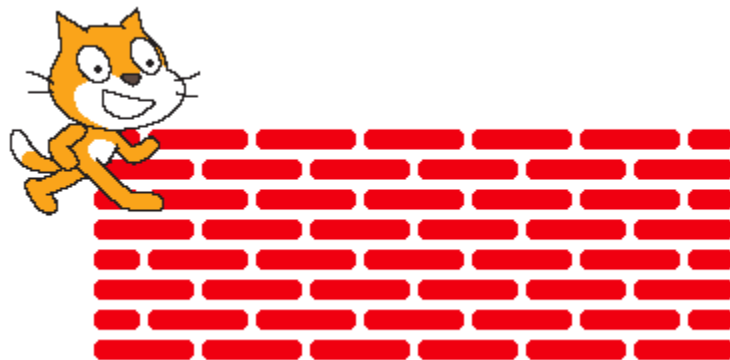


## Homework 02 – Brick Wall & Movie work

This homework is to see how we can use broadcast to break a very hard problem up into much easier problems. This homework will also help you get more experience with ifs by modifying the programs from lab.

### A brick wall!

The goal is to draw a brick wall that looks like this. You are free to change how the wall looks, but we recommend you get this working first.



- To get started, write blocks to draw half of a brick, a block that draws a full brick and a block that uses `pen up` to make a space.



- You may want to change your pen color and pen size using these pieces.



- The bottom row of the wall has all full bricks.



- Using a repeat, try to make "row1" that creates this line of bricks



- We think that answering these questions might help you...
  - How many spaces are there in row1? \_\_\_\_\_
  - How many bricks are there in row 1? \_\_\_\_\_
  - How long is the entire row1 of bricks? \_\_\_\_\_

- The second row of bricks has a half-brick at the beginning and end.



- Use a repeat to try to make “row2” that creates this line of bricks.



- We think that answering these questions might help you...

- How many spaces are there in row2? \_\_\_\_\_
- How many bricks are there in row 2? \_\_\_\_\_
- How many half-bricks are there in row2? \_\_\_\_\_
- How long is the entire row2 of bricks? \_\_\_\_\_

- We think that answering these questions might help you...

- We want row1 and row2 to be the same length. What can we use as the length for these:
  - Brick length \_\_\_\_\_
  - Half brick length \_\_\_\_\_
  - Space length \_\_\_\_\_

## Rock Paper Scissors against the Computer

- Modify the Rock Paper Scissors to take in input from the user. They should be able to type “Rock”, “Paper” or “Scissors” to play.
  - Do something sensible if the user types in something other than “Rock”, “Paper” or “Scissors”
- Keep score of the number of times each player has won.

## Number guessing in reverse

- Make a project where the user gets to pick a random number and the computer has to guess it.
  - Have the computer ask the user to type in the maximum value.
  - Have the user type in “higher”, “lower” or “correct” to respond to the computer’s guesses.
  - Have the computer keep guessing a number until the user types in “correct”.
  - Make the computer smart so that each guess cuts the number of possible numbers in half.