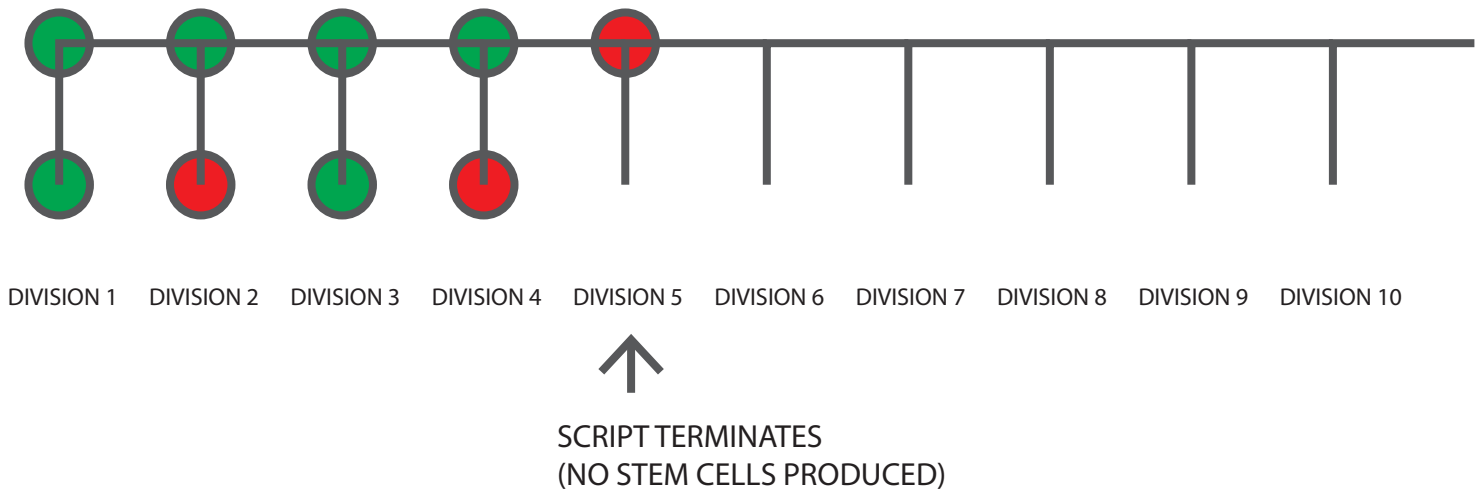




MATLAB SCRIPT: tracks a single lineage through (at most) 10 cell division for some **reference number of A TYPES** and count the number of *A TYPE CELLS* produced by the given stem cell. Below is an example of a single execution of the MATLAB script.

INPUT: **reference number of A TYPES** (this should be a parameter in your RULE BENDER simulation that you set before the start of the script for loop)



OUTPUT: the *number of A TYPES produced* = 3 (this is the value you should record)

How you should use the MATLAB script in your design.

STEP 1: select a **reference number of A TYPES** (this is the input to your simulation).

STEP 2: execute the MATLAB script and record the number of *A TYPES produced*.

STEP 3: repeat step 2 a sufficient number of times in order to get a good estimate of the mean and the variance of the number of *A TYPES produced*.

STEP 4: increment the **reference number of A TYPES** to the next value.

STEP 5: go to step 2, until enough references are tested

STEP 6: after all values of **reference number of A TYPES** have been tested, generate the following plot (ideal resulting plot is shown, use the MATLAB command **errorbar**)

