Write a program (on paper, not to be compiled) for a Turing Machine that halves a given number, rounding down. The valid input characters are 0 through 9 and space. The valid output characters are the same as the valid input characters. The input will consist of one decimal (base ten) integer followed by a space. There will be no leading zeros in the number (unless the number is zero in which case will be represented by 0 followed by a space). The output format should be the same as the input format.