PROBLEM 4 (10/10 points)

Answer the following question without running the code. The procedure `isMyNumber` is used to hide a secret number (integer). It takes an integer `x` as a parameter and compares it to the secret number. It returns:

- -1 if the parameter `x` is less than the secret number
- 0 if the parameter `x` is correct
- 1 if the parameter `x` is greater than the secret number

The following procedure, `jumpAndBackPedal`, attempts to guess a secret number. The only way it can interact with the secret number is through the `isMyNumber` procedure explained above.

```
def jumpAndBackpedal(isMyNumber):
    '''
    isMyNumber: Procedure that hides a secret number.
     It takes as a parameter one number and returns:
     *  -1 if the number is less than the secret number
     *  0 if the number is equal to the secret number
     *  1 if the number is greater than the secret number

    returns: integer, the secret number
    '''
    guess = 1
    if isMyNumber(guess) == 1:
        return guess
    foundNumber = False
    while not foundNumber:
        sign = isMyNumber(guess)
        if sign == -1:
            guess *= 2
        else:
            guess -= 1
    return guess
```

Unfortunately, the implementation given does not correctly return the secret number. Please fix the errors in the code such that `jumpAndBackpedal` correctly returns the secret number.

You will not be able to see the "Full Output" test cases. This question is meant to test your ability to analyze what code does at a higher level.

Correct

Test results

Hide output

CORRECT

Hide output

Check Save *You have used 1 of 10 submissions*