1) Question 1 of 1

Assume you are given an integer \( 0 \leq N \leq 1000 \). Write a piece of Python code that uses bisection search to guess \( N \). The code prints two lines: `count:` with how many guesses it took to find \( N \), and `answer:` with the value of \( N \). Hints: If the halfway value is exactly in between two integers, choose the smaller one.

```python
# Write your code here

low = 0
high = 1001
guess = (high+low)//2
count = 1
while guess != N:
    if guess < N:
        low = guess
    elif guess > N:
        high = guess
guess = (high+low)//2
count += 1
print("count:",count)
print("answer:",guess)
```

You have infinitely many submissions remaining.

Here is the solution we wrote:

```python
low = 0
high = 1001
guess = (high+low)//2
count = 1
while guess != N:
    if guess < N:
        low = guess
    elif guess > N:
        high = guess
guess = (high+low)//2
count += 1
print("count:",count)
print("answer:",guess)
```