**Logarithm (Iterative algorithm) (20 pts)**

* Get a user input of a positive integer number: A
* Get a user input of zero or a positive integer number: B
* A is a base and B is an exponent of A
* Calculate 2
* Print C

Pseudo code (may have a bug. Please make sure the correctness)

Func Main ():

Get A and B

C = 0

While B > 1

B = Div(B, A)

C += 1

Print C

End\_Main

Func Div(E, F)

V = 1

While E > 0

E = E - F

V += 1

Return V

End\_Div

Test cases

|  |  |  |
| --- | --- | --- |
| Input A | Input B | Output C |
| 2 | 16 | 4 |
| 3 | 81 | 4 |