# bug1:

## bug description:

This system cannot treat negative number correctly.

As a negative number is also integer, the backend side cannot analysis it correctly.

The front end freeze as the backend is error status code 500.

## bug shot:



#### How to reproduce:

>

Just input any negative integer, like -6 or -4.

ctorial 500 (INTERNAL SERVER ERROR)

## Reason estimation& fix suggestions:

The backend API functions only consider positive integer and 0 case but forgot negative number cases. Thus the API function cannot provide response and the front end freeze.

POST https://qainterview.pythonanywhere.com/fa jquery-1.12.4.js:10254

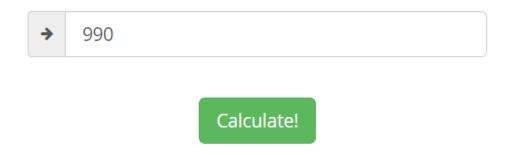
# bug2:

## bug description:

This system cannot handle large numbers. After testing, I find when the integer larger or equal than 990, the front end freeze because of internal error code 500 on console.

## bug shot:

# The greatest factorial calculator!



## The factorial of 989 is: Infinity

	989	<u>(index):65</u>
	Hello! I am in the done part of the ajax call	<u>(index):80</u>
	▶ {answer: Infinity}	<u>(index):81</u>
	990	<u>(index):65</u>
8	▶ POST <a href="https://qainterview.pythonanywhere.com/fa">https://qainterview.pythonanywhere.com/fa</a> <a href="jauery-1.12.4.js:10254">jauery-1.12.4.js:10254</a> <a href="mailto:ctorial">ctorial</a> <a href="mailto:500">500</a> (INTERNAL SERVER ERROR)	

#### How to reproduce:

Just input any integer large or equal than 990, and check result

#### Reason estimation & fix suggestions:

The backend API cannot digest large numbers. I believe that is because of number overflows or exceed memory during calculations. I suggest add a check to find if the integer is large than 170. As for number large than 170, they are all infinity, which will reduce lots of memory cost.