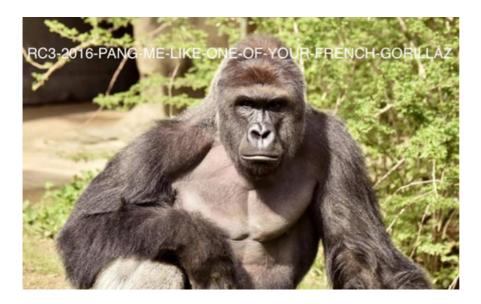


Upon analyzing the first few lines of the result and based from experience, I deduced that it is a jpg file that needs to be in Base64 format. Learning this, I then converted the results to Base64.

</> for c in `cat somepang.txt`; do printf "\x\$c"; done;

Using "data:image/jpeg;base64," string plus the Base64 code on a web browser, the flag is revealed!



Flag:

RC3-2016-PANG-ME-LIKE-ONE-OF-YOUR-FRENCH-**GORILLAZ**

CALCULUS

Title: Calculus **Category:** Crypto

Points: 200

Description:

I hope you like calculus.

Make sure to put "RC3-2016-" in front of your result.

Google Word Doc: https://drive.google.com/open? id=1fy05WIVTxymehT5i_n64VoIScTcGAXcKjeW6mLZnBp4

So here is a screenshot of the problems.

$$\frac{d}{da} \left[\frac{1}{2} a^{2} \right]$$

$$\int [2n] dn$$

$$\frac{d}{dt} \left[\frac{1}{4} t^{4} + 3 \right]$$

$$\int [4i^{3}] di$$

$$\frac{d}{dd} \left[\frac{1}{3} d^{6} + 6 \right]$$

$$\int [6e^{5}] de$$

$$\frac{d}{dr} \left[\frac{1}{8} r^{8} + \frac{1}{6} r^{6} + \frac{1}{4} r^{4} + \frac{1}{2} r^{2} + r \right]$$

$$\int [8v^{7} + 7v^{6} + 4v^{3} + 2v + 9] dv$$

What I did is that I computed all the calculus problems, and here are my answers for it.

$$\frac{d}{da} \left[\frac{1}{2} a^{2} \right] = a$$

$$\int [2n] dn = n^{2}$$

$$\frac{d}{dt} \left[\frac{1}{4} t^{4} + 3 \right] = t^{3}$$

$$\int [4i^{3}] di = i^{4}$$

$$\frac{d}{dd} \left[\frac{1}{3} d^{6} + 6 \right] = 2d^{5}$$

$$\int [6e^{5}] de = e^{6}$$

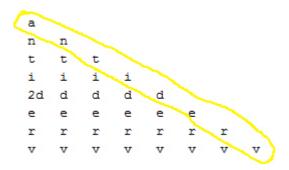
$$\frac{d}{dr} \left[\frac{1}{8} r^{8} + \frac{1}{6} r^{6} + \frac{1}{4} r^{4} + \frac{1}{2} r^{2} + r \right] = r^{7} + r^{5} + r^{3} + r + 1$$

$$\int [8v^{7} + 7v^{6} + 4v^{3} + 2v + 9] dv$$

$$= v^{8} + v^{7} + v^{4} + v^{2} + 9v$$

After being stuck on this (I did re-checked for computations where I might got it wrong), it came into my mind to plot the

answers, which interestingly gave me the flag!



Note that after this it came up into my mind that you could actually guess the flag and skip solving the calculus problems by just looking at the letters included on the calculus problems.

Flag:

RC3-2016-antidery

CATS

Title: Cats

Category: Crypto

Points: 300

Description:

Decipher the image and find the hidden flag. (Note that I forgot to save the actual task description – as it did gave hints that image contains the needed characters to be added to "RC3-2016-" for the flag.)

So here is the image which is in .gif format and contains pictures of cats.

After examining and analyzing the image, I found no interesting files that are hidden on it – which is weird.

So what I did is investigate it more by using Photoshop which I found that there are 8 layers of it.