



C Piscine

Day 24  
The Spy Who Coded me

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*Abstract: THE FOLLOWING TAKES PLACE BETWEEN 10.00 P.M. AND 11.00 P.M.*

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# Chapter I

## Instructions

- Only this page will serve as reference: do not trust rumors.
- Watch out! This document could potentially change up to an hour before submission.
- Make sure you have the appropriate permissions on your files and directories.
- You have to follow the submission procedures for every exercise.
- Your exercises will be checked and graded by your fellow classmates.
- On top of that, your exercises will be checked and graded by a program called Moulinette.
- Moulinette is very meticulous and strict in its evaluation of your work. It is entirely automated and there is no way to negotiate with it. So if you want to avoid bad surprises, be as thorough as possible.
- Moulinette is not very open-minded. It won't try and understand your code if it doesn't respect the Norm. Moulinette relies on a program called **Norminator** to check if your files respect the norm. TL;DR: it would be idiotic to submit a piece of work that doesn't pass **Norminator**'s check.
- These exercises are carefully laid out by order of difficulty - from easiest to hardest. We **will not** take into account a successfully completed harder exercise if an easier one is not perfectly functional.
- Using a forbidden function is considered cheating. Cheaters get -42, and this grade is non-negotiable.
- If `ft_putchar()` is an authorized function, we will compile your code with our `ft_putchar.c`.
- You'll only have to submit a `main()` function if we ask for a program.

- Moulinette compiles with these flags: `-Wall -Wextra -Werror`, and uses `gcc`.
- If your program doesn't compile, you'll get 0.
- You cannot leave any additional file in your directory than those specified in the subject.
- Got a question? Ask your peer on the right. Otherwise, try your peer on the left.
- Your reference guide is called `Google / man / the Internet / ....`
- Check out the "C Piscine" part of the forum on the intranet.
- Examine the examples thoroughly. They could very well call for details that are not explicitly mentioned in the subject...
- By Odin, by Thor ! Use your brain !!!

## Chapter II

### Austin Powers III

« Here we are Cluj-Napoca, told you my Shaguar was able to do the trip in record time baby ! It's an old model, but the seats are comfortable, and can unfold completely to allow...

- Austin ! The factory ! It's burning ! »

Oh. Indeed. I was wondering where that crazy heat was coming from as early as 7 P.M., couldn't be me.

« Groovy ! Seems like someone already did the job we're going to do ! »

I went full throttle to brake in a fashion way. Pedestrians were already there, taking pictures so they can tweet about it.

« Make way, make way, secret agents, secret agents, it's a national emergency !

- Austin Powers, shouted a man, turning around facing me, it's time to die !

- Scoot Evil ! Donnie, it's a trap, he's the...

- Son of Dr Evil, Austin i know ! And it's not bystanders around us it's an army of female-bots !

- I destroyed the factory before you, Powers. I have a robotic army under my command. You can't stop me now ! Dovaogēdys ! Naejot memēbātās ! Don't worry, i'll let you an explosive surprise ... »

As scott was running away protected by his invincible army, one of the female-bot seemed to be overheating.

Alors que Scott Evil s'enfuit de la place, protégé par son armé invincible, une femme-bot reste en retrait et commence à entrer en surchauffe.

« 7...

- Seven seconds, we're going to die Donnie !

- 22...

- Twenty-two seconds ? We can still make it to the Shaguar !

- 11...

- Eleven ? Went down again ?


- 34... »

# Chapter III

## ft\_collatz\_conjecture.c

Will Austin and Donnie make it ?

The lady-bot's countdown seems to be malfunctioning...

	Exercice : 07
ft_collatz_conjecture.c	
Turn-in directory : <i>ex07/</i>	
Files to turn in : <i>ft_collatz_conjecture.c</i>	
Allowed functions : <i>Nothing</i>	
Remarks : <i>n/a</i>	

- Create a function `ft_collatz_conjecture` which will return the "flight time" for a given argument.
- This function must be recursive.
- Here's how it should be prototyped :

```
unsigned int ft_collatz_conjecture(unsigned int base);
```