



# C Piscine

Day 24

The Spy Who Coded me

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

# Contents

1	Instructions	2
2	Austin Powers III	3
3	ft_collatz_conjecture.c	5

# Chapter 1

## Instructions

- The exercises are carefully laid out in order of difficulty, from easiest to hardest. The grading for the day will NOT stop at the first mistake.
- Be mindful of the submission procedures indicated at the start of 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. Be as thorough as possible!
- Moulinette relies on a program called **norminette** to check if your files respect the Norm. An exercise containing files that do not respect the Norm will be graded 0.
- 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, it will be graded 0.
- You should not leave any additional file in your directory than those specified in the subject.



For this day, norminette is launched without any particular flag!

# Chapter 2

## 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 3

## ft\_collatz\_conjecture.c

Will Austin and Donnie make it ?

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

Turn-in directory : ex07/

Files to turn in: ft\_collatz\_conjecture.c

Allowed functions: None

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- 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);
```