

Algorithmics	Student information	Date	Number of session
	UO:282276	01/02/2022	1
	Surname: Cadenas Blanco		
	Name: Andrés		



Escuela de
Ingeniería
Informática
Universidad de Oviedo



Activity 1. Power of the CPUs

#	CPU	Miliseconds	SC Mix (avg)	Operations (aprox.)
1.	i7-4500U	285	71.3	20.320,5
2.	i3-3220	267	82.6	22.054,2
3.	i5-4590	219	98.1	21.483,9
4.	i7-4790	207	107	22.149
5.	Intel Core i7-10750H	306	129	306 * 129 = 39474
6.	Intel Pentium Gold G5400	215	104	215 * 104 = 22360

Do you think you could mix values from different CPUs in the same analytical study of the execution times of an algorithm?

I don't think you can use the ms of the benchmark to compare directly and mix values of different cpu's. As even though the time might be less, the number of operations performed by the cpu might be way higher in a lower benchmark. Plus, it would need to be the mean of a sample to be precise.

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Activity 2. Influence of the operating system

1. Which energy plan do you think is the most appropriate for making measurements?

Performance mode might be the way to go in benchmarking as, the hardware has more freedom and power. In addition, the power saving mode and balanced modes might create a top on the speed halfway the measurement.

2. If you had to perform a very long experiment, could you use the computer to, for example, watch a YouTube video in the meantime?

Although in a very long experiment small changes while measuring might not be as “explosive” as in a short measurement. It’s not a good idea to watch a Youtube video in the meantime as in a long term it will modify the measurement, making it a huge change.

3. Do you think it is convenient to make several measurements simultaneously on the same computer?

It’s the same as a Youtube video. Everything that can disturb a measurement is bad for itself even a different measurement. As those several tests will be fighting for the same resources and maybe provoking the pc components to reach its limit.