

# Tarea 1

## Cálculo distribuido

### Del número PI

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### Descripción





En esta tarea se va a desarrollar un programa distribuido que calculará una aproximación de PI utilizando la serie de Gregory-Leibniz.

### Capturas

Ejecución simultánea de los 4 programas con distintos con el script personalizado de Make:

```
sistemas_distribuidos/T1_CalcOfPi on  master [?]  
→ make run  
javac ConsoleColors.java  
javac CalcOfPi.java  
java CalcOfPi 0 & \  
java CalcOfPi 1 & \  
java CalcOfPi 2 & \  
java CalcOfPi 3 & \  
wait  
Trying connecting to localhost at 50000  
Trying connecting to localhost at 50000  
Trying connecting to localhost at 50000  
[Server] Connected to node 0  
[Server] Connected to node 1  
[Server] Connected to node 2  
SUCCESS The PI value aproximated is: 3.141592628592157  
  
sistemas_distribuidos/T1_CalcOfPi on  master [?]  
→ 
```

Compilación con Make:

```
sistemas_distribuidos/T1_CalcOfPi on  master [+]  
→ make clean  
rm -f *.class  
  
sistemas_distribuidos/T1_CalcOfPi on  master [+]  
→ make  
javac ConsoleColors.java  
javac CalcOfPi.java  
  
sistemas_distribuidos/T1_CalcOfPi on  master [+]  
→ 
```

Ejecución en 4 terminales distintas, ya compilados los programas por Make:

```
sistemas_distribuidos/T1_CalcOfPi on  master [+]
+ java CalcOfPi 0
[Server] Connected to node 0
[Server] Connected to node 1
[Server] Connected to node 2
SUCCESS The PI value aproximated is: 3.141592628592157

sistemas_distribuidos/T1_CalcOfPi on  master [+]
+ 
```

```
sistemas_distribuidos/T1_CalcOfPi on  master [+]
+ java CalcOfPi 2
Trying connecting to localhost at 50000

sistemas_distribuidos/T1_CalcOfPi on  master [+] took 8s
+ 
```

```
sistemas_distribuidos/T1_CalcOfPi on  master [+]
+ java CalcOfPi 3
Trying connecting to localhost at 50000

sistemas_distribuidos/T1_CalcOfPi on  master [+] took 5s
+ 
```

```
sistemas_distribuidos/T1_CalcOfPi on  master [+]
+ java CalcOfPi 1
Trying connecting to localhost at 50000

sistemas_distribuidos/T1_CalcOfPi on  master [+] took 12s
+ 
```