Time taken for Finding 700 Eight Digit Primes

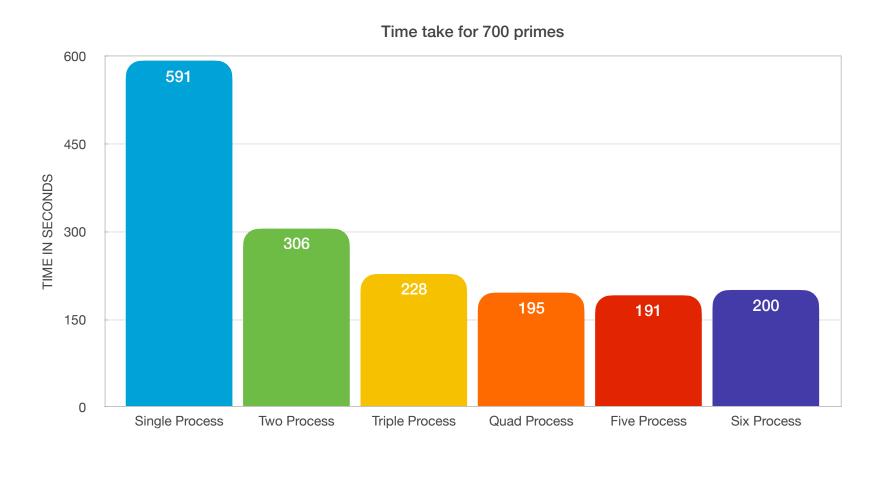
The data shows time taken for code execution by use of multiple cores for multiprocessing.

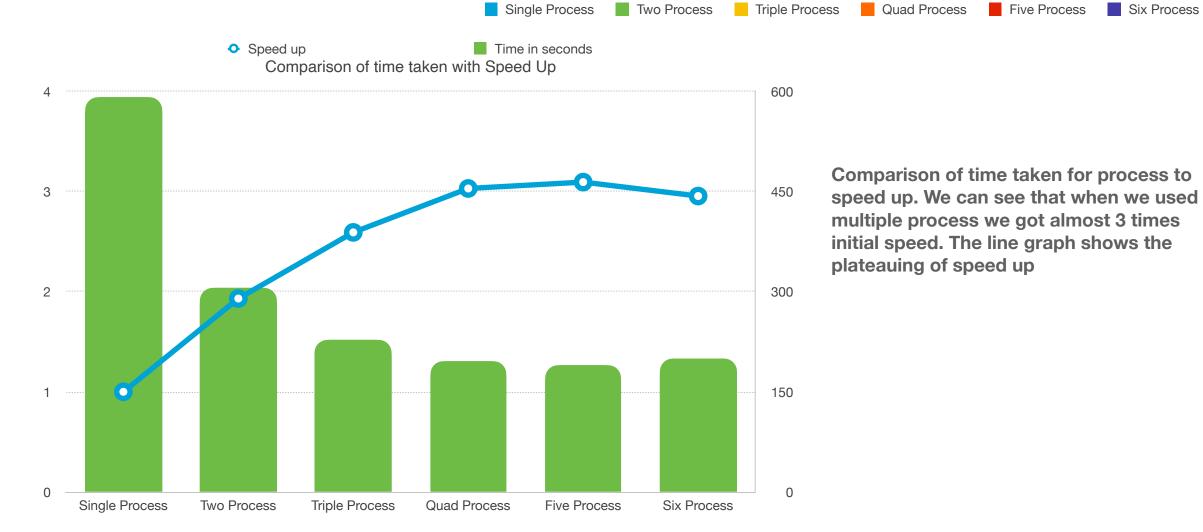
Looking at data we can easily see that multiprocessing significantly improves performance for certain tasks.In Cpu's with multiple cores. However the improvements diminishes after certain number of Processes.

SPECIFICATION:

1.4 GHz Quad-Core Intel Core i5 Macbook Pro







Comparison of time taken for process to speed up. We can see that when we used multiple process we got almost 3 times initial speed. The line graph shows the plateauing of speed up

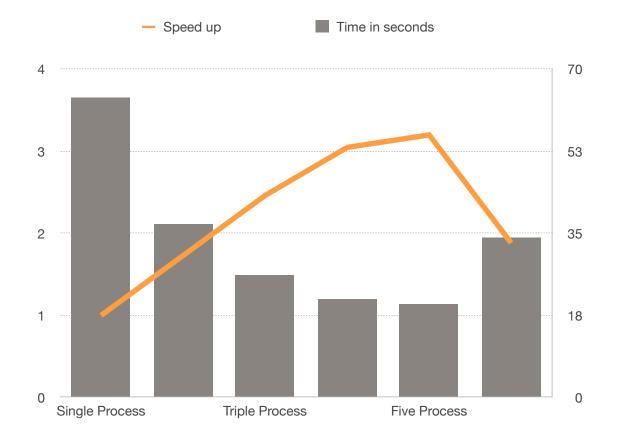
The Factorial experiment shows that if we keep increasing the number of process greater than number of available cores we might incur additional overheads due to context switching

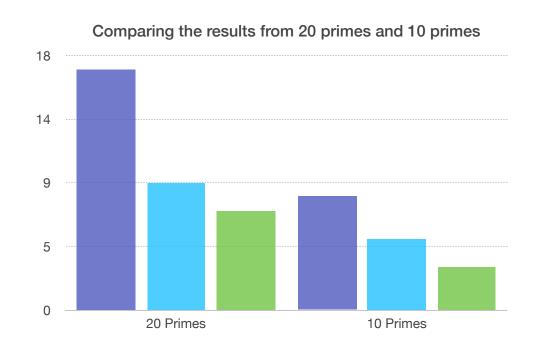
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PROCESS USED	TIME IN SECONDS	SPEED UP
Single Process	64	1
Two Process	37	1.73
Triple Process	26	2.46
Quad Process	21	3.05
Five Process	20	3.20
Six Process	34	1.88

Time taken for Finding 10,000 Factorials Iterative method





Comparison of Primes

DESCRIPTION	20 PRIMES	10 PRIMES
Single Process	17	8
Double Process	9	5
Triple Process	7	3
Quad Processes	5	2

Different inputs taken to see if we have similar trends.