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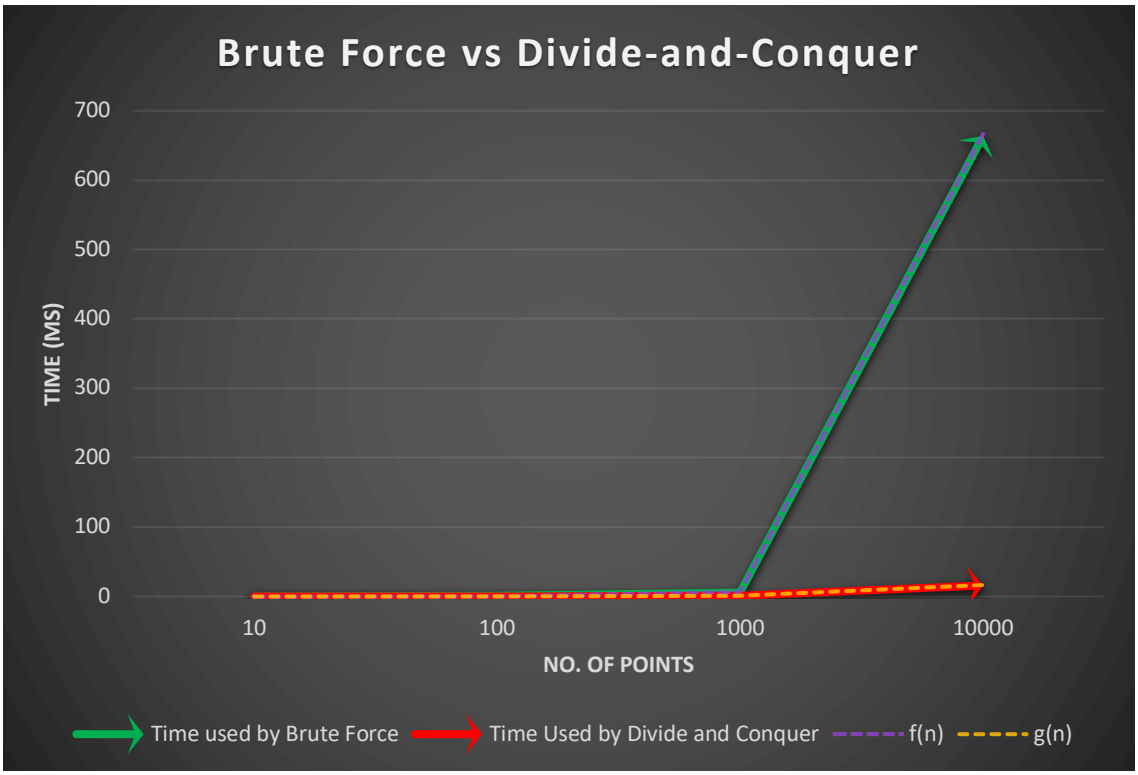
CS 403

No. of points	Time used by Brute Force	Time Used by Divide and Conquer	f(n)	g(n)	c1	c2
10	0	0	0	0.004	*6.67E-06*	*0.000125*
100	1	0	0.07	0.083	6.67E-06	0.000125
1000	6	1	6.67	1.246	6.67E-06	0.000125
10000	664	16	667	16.61	6.67E-06	0.000125



While testing for the values of *c1* and *c2*, I noticed that the constants, *c1* and *c2* have a greater impact the larger *n* gets. After analyzing my findings, I can conclude, using with my prior knowledge of growth functions, that for $n \leq 100$ both Brute Force and D&C algorithms perform at a similar rates, while for $n > 100$ D&C becomes the clear winner in terms of performance. In conclusion, this assignment helped me better understand asymptotic growth rates of functions.