

	A	B
1	TASK	EXCECUTION TIME
2	Task 2	0.024
3	Task 3	0.025
4	Task 5	0.029
5		

Conclusions:

The execution times for all tasks are quite similar, ranging from **0.024 to 0.029 seconds**.

Task 2(Piecewise Linear Regression) took the shortest time, completing in **0.024 seconds**. This suggests that, despite handling splines and knots, the linear model is computationally efficient. Linear regressions typically involve fewer computations compared to polynomial models.

Task 3(Piecewise Polynomial Regression) took 0.025 seconds, even though polynomial regression involves more complex operations (fitting higher-order terms), the computational cost in this case is marginally higher than that of the linear regression.

Task 5 (Multimodal Gaussian with Polynomial Regression) took the longest, at **0.029 seconds**. The multimodal Gaussian distribution likely involves more complex computations due to the nature of the data (modelling multiple peaks), which could explain the higher execution time compared to piecewise regressions.