

Student 1:

A1: Supervised learning is when the data has labels and we try to predict those labels. Unsupervised learning works without labels to find patterns, like clusters. Example supervised: spam detection. [Missing example for unsupervised]

A2: 0.9

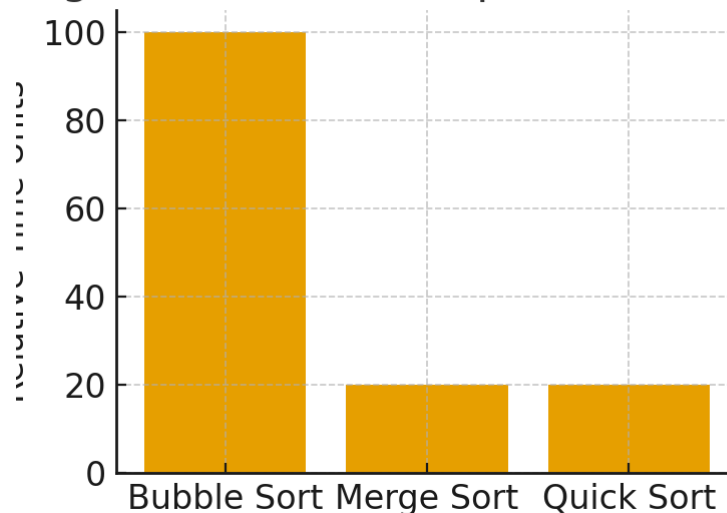
A3: Code prints 'Prime'/'Composite' (wrong capitalization, wrong wording).

A4: B) Insertion sort because I think it's fast.

A5: From the table, Bubble Sort is $O(n^2)$, while Merge Sort and Quick Sort are $O(n \log n)$. The chart also shows that Merge Sort and Quick Sort are more efficient than Bubble Sort.

Algorithm	Time Complexity
Bubble Sort	$O(n^2)$
Merge Sort	$O(n \log n)$
Quick Sort	$O(n \log n)$

Algorithm Time Complexities (relative)



Student 2:

A1: Supervised learning uses labeled input-output pairs to train a model (e.g., regression); unsupervised uses unlabeled data to discover structure (e.g., clustering). Example supervised: image classifier; example unsupervised: k-means. The key difference is labels vs. no labels.

A2: 1

A3: Correct primality code, correct output ('prime'/'composite').

A4: C) Merge sort, because divide-and-conquer with merging yields $O(n \log n)$.

A5: The table shows Bubble Sort has quadratic complexity, Merge and Quick Sort are $O(n \log n)$. The chart confirms that Merge Sort and Quick Sort scale better.

Algorithm	Time Complexity
Bubble Sort	$O(n^2)$
Merge Sort	$O(n \log n)$
Quick Sort	$O(n \log n)$

Algorithm Time Complexities (relative)

