Harm/Benefit Analysis: [Describe who is most likely to be harmed and who is most likely to benefit from this code, if it is used in the real world. Is the good greater than the harm? Would you be willing to implement it?]

Here while we’re hoping to merge schools this is of course affecting students in one way or another. I would say that the schools just want to save money and that’s it then it might do more harm to the students, but of course will save money. If this saved money will be used towards students, classrooms, etc. then putting students under one school will likely cause a net benefit. No one wants to be in a cramped school and travel a longer distance on average while getting nothing in return, but if the money saved is being used for good then I could imagine this being worth implementing.

Correctness Assessment: [Does the code compile? Does the code run without errors? Does the code output the correct answer on test cases? What test cases have you tried? What issues are you aware of?]

The code compiles and returns an answer without errors. I tried an array of a few schools that I could verify on my own. The base case was verified first to ensure that it would work as that does the most work. Then using the console log students I ensured that my arrays were correctly made. The current issue I'm aware of is this code will not work if we don’t have unique x and y values.

Modularity/Extensibility/Flexibility: [Describe how you broke up your code into methods or classes to make the code easier to organize/reuse. Is there anything that you hard-coded that would present challenges if the input were modified, or if additional functionality was required? Are there repeated blocks of code that could be consolidated into a method or a loop?]

I hard-coded the number of iterations that the final for loop would have to do to be 7. I can't imagine it causing an error unless we decide to expand this to 3D then we might have some problems. I noticed we would be calculating the distance quite a bit and the methods to getX are a little clunky so I decided to input the schools entirely into my input function instead of just the numbers to make it simpler to use. It however will not work if what we enter is not of the type “School”. In theory, I could’ve put more of my code into methods but I decided to stick to the pseudocode unless there was a bunch of repetition.

Readability: [Is your code commented? Did you choose variable and method names that help the reader understand their purpose?]

Yes, I almost always tried to use descriptive names even if they got a little long. Some names could’ve been better over time naming things got a little harder.

Effort: [Describe the effort (time, approaches you took when stuck) that you put into the assignment. If you could go back and do it again, how would your approach change?]

If I decided to change my approach I would’ve done the methods first by looking at what repeats the most and programming that. I felt some of the code got a little hard to read in some places so possibly creating methods with descriptive names to simplify my code.

Help: Who helped you with this assignment? If people helped you, describe who helped you and the help you received. If you got help from generative AI, please copy and paste the prompts and responses you got. If there were parts of the code that you received help on that you initially did not understand how or why they worked, please describe those parts, and explain how you learned their purpose and how they work.

I mostly used the pseudocode provided to implement my code. I didn’t feel anything was too difficult to implement. The indexes could’ve been wrong however in which case it's very easy to get an index out-of-bounds error. For that, I generally created console.log statements to check values.