Logistics:

How do I turn in the assignment?

- Run "make turnin" from your main PA directory

I cannot run "make turnin" without errors

- Make sure to run "cs101w" before starting any development

I still cannot turn in my code!

- Try sshing into an ieng6 machine and running through the previous steps. If none of these seem to solve your problem, check and post on Piazza with a detailed explanation of your issue.

My executable don't recompile when I change my code

- Try running "make clean" before re-compiling

Can I write helper methods?

- Yes, feel free to add helper methods if needed, as long as the code remains readable and compiles with the original .hpp files

Do we need to worry about memory leaks in valgrind?

- No, we will not be testing memory leaks.

How can I check my code?

- We have provided example test cases from the writeup in the repository. Create your own to thoroughly test your implementation.

My graph.hpp is not compiling, what should I do?

- You probably forgot the keyword "Test" in your make command. For example, 'make DFS' instead of 'make TestDFS'. Please try running the make command with the Test keyword!

If I work with a partner do we both need to turn in the code?

- No, only one person needs to turn it in, as long as **both students' information** is in the header of your .cpp files

Is it okay to look up pseudocode online?

- Yes, it is fine to take pseudocode and turn it into C++. It is **not okay** however, to directly copy code from online sources. Any websites you consult must also be added to your header.

Can I use debug statements in my code?

- Yes, but **make sure to remove them all before turning in.** If your output does not match ours exactly you will not receive credit for that test.

TwoD_Array

Why do we need a separate class? Can't we just declare a 2d array ourselves?

- 2d arrays in C++ may become segmented in memory making lookup and modification times very slow. In addition, an entire array may not fit in stack space. Our implementation abstracts away these memory problems so you can focus on the code itself.

How do I modify an element?

- The at() method returns a reference so it can be used for both getting and setting values

RodCut

What if I am left with a length of rod I can't sell?

- You are guaranteed a price for a rod of length 1, so you will never have spare unsold rod length left over.

Will there be negative rod values or prices?

- No.

GridSum

Will we be tested on negative values?

- No, but they shouldn't affect your algorithm since we are only calculating the sum of the elements.

Where do I store the precomputed matrix?

- We have declared a TwoD_Array<int>* pg in the class that you can use to create a new array and fill with precomputed values.

Does that mean I have to create and declare the pg array myself?

- Yes

Do I need to write both methods?

- Yes, you need to write the constructor to build the pg precomputed matrix, as well as the query method to actually return the sums.

Do I need to manually call these methods when I test?

- No, the tester will call your constructor using the initial grid of values then query it with every subsequent query in the file.

How fast does my query need to run?

- Your query should run in O(1) time.

LCS

Can I keep track of the prefix strings in the matrix itself?

- Since the strings can reach up to 5000 characters, storing the strings themselves will quickly cause you to run out of stack space.

USB

My memoized function segfaults on large inputs!

- This is because you are running out of stack space from the recursion calls and is expected.