Those are examples for estimating the app "GRADER", please copy and paste the corresponding instruction for inputs. You can use your own questions and answers for grading.

- rubric_example_0

  Question:
  Compare "base + offset" and "base + index" addressing modes. Give one example of when we might use "base + offset", and one when we might use "base + index".

  Student Answer:
  "Base + offset" calculates addresses using an absolute offset, whereas "base + index" calculates addresses using an offset multiplied by a fixed constant. "Base + offset" can be used to access members of a struct. "Base + index" can be used to access array elements, especially when using a counter to loop through all elements of the array.

- rubric_example_1

  Question:
  List two data structures that you would implement in main memory and NOT registers. Why?

  Student Answer:
  Both the stack and the heap would be implemented in main memory and not in registers. This is necessary since both these data structures do not have a fixed size, and can grow/shrink dynamically. As such, it is more suitable to implement these data structures in memory since there will likely not be enough registers to store all the data in these data structures.

- rubric_example_2

  Question:
  Give one example where registers make a task run faster? Justify your answer.

  Student Answer:
  Using registers to store and access variables, especially when the variable in question is being accessed multiple times in a program, would be a lot faster than storing that same variable in memory and accessing it each time it is needed. This is because reading from a register takes far fewer clock cycles than reading from memory.