

Report

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PART 1

Implementation:

In my code count_of_gcd that is the number of pairs for which gcd has to be calculated is stored in register x5 which is decremented at each each iteration

x3 stores the value of the first number(a) and x5 stores the value of the second number(b) in the pair.

I have defined check, loop, else in which check checks if a is equal to b, if it is gcd is found and it continues the same for the other pair. If it is not it runs "loop" in which a and b values are updated according to the GCD algorithm given in the question paper.

I have initialised x10 to be 0x10000000 which is updated in every iteration to get the address in which the gcd have to be stored

Testing:

I have tested with the example given in the question paper and few random pairs.

(Test case1: 4, 10, 30, 4, 5, 26, 30, 56, 100

Test case2 :3 23, 46, 22, 33, 46, 78)