Mid-term

Due Nov 11 at 4:15pm **Points** 35 **Questions** 1
Available Nov 11 at 3:09pm - Nov 11 at 4:15pm about 1 hour **Time Limit** None

This quiz was locked Nov 11 at 4:15pm.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	64 minutes	0 out of 35 *

* Some questions not yet graded

Score for this quiz: **0** out of 35 *
Submitted Nov 11 at 4:14pm
This attempt took 64 minutes.

Question 1

Not yet graded / 35 pts

Q1 Write a function that takes two numbers a and b and prints their common prime factors.

Q2 Let n be given a natural number. Write a function to get the value of n and returns any pairs (a, b) in which a and b are smaller or equal to n and satisfy the following:
• When divide $a^2 + b$ by $a + b^2$ and get the quotient q and the remainder r, their summation q + r is a prime number.

Q3 The Fermat sequence is the sequence of numbers 3, 5, 17, etc., of the form $_2 2^x + 1$ for $x \in N$. Write a function to test the primality of these numbers for x up to a given number n.

Q4 Write a function that given number $x \in \mathbb{Z}_m$ as an input, checks whether x has a multiplicative inverse modulo m or not. The output is a true/false answer.

Q5 Write a function that returns all possible residues modulo given input n that their multiplicative inverse is prime.

mid.ipynb (https://canvas.elte.hu/files/1968522/download)

Quiz Score: **0** out of 35