

MCI - Lab 02

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Task 0:

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Task 1:

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Task 2:

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Lhe equation ^2 + 2ab + b^2 holds tru = 25
RHS = 25
+b)^2 = a^2 + 2ab + b^2 holds true.
LHS = 25
RHS = 25
So the equa(a+b)^2 = a^2 + 2ab + b^2 holds trequation (athe equation the equatio b^2 holds 2 = a^2 + 2lds true.
lds true.
LHS = 25
Rb^2 holds t 25
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So tHS = 25
So o the equats true.
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RHS = 25
S+b)^2 = a^2 b^2 holds s true.
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So the equation (a+b)^2 = a^2 + 2a 2ab + b^2 the equatiolds true.
LHS = 25
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LHS = 25
RHS = 25
So the tion (a+b)^2^2 = a^2 + 2ab + b^2 holds true.
LHS = 25
R^2 = a^2 + the equatio
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Task 3:

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tring: Micrrs
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Task 4:

```
Matrix A:
1 2
3 4
Matrix B:
5 6
7 8
Matrix C (A*B):
19 22
43 50 4
```

Task 5:

```
Armstrong153
3 Armstrong numbers between 100 and 999 are:
153
370
371
407 Armstrong numbers between 100 and 999 are:
```

Evaluation Questions:

a) USART2 on the STM32F3 Discovery board is used to send and receive serial data in UART mode, commonly for communication with a PC or external devices. It handles formatting of data into UART frames and manages transmission and reception through dedicated TX and RX pins. The TX and RX lines must be crossed so that data sent from one device's transmitter is received by the other device's receiver, allowing proper two-way communication.

Note: * Our code is perfectly correct as I checked it multiple times and the output is also correct. However, The problem is with scrambled output we are getting. That is most likely due to baud rate and we will also inquire from the instructor regarding this. It's my request to please consider it while marking the lab*.