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| Problem 1: |  |

Write a program that takes 2 matrix from user and do the matrix multiplication if possible. And show the result.

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| Problem 2: |  |

Write a program that takes 2 matrix from user and ask the user witch operation he/she want to do on matrix (+ or -) and perform if possible.

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| Problem 3: |  |

Write a program that takes a matrix from user and print the sum of each column.

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| Problem 4: |  |

Write a program that takes a matrix from user and show the transpose of a matrix.

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| Problem 5: |  |

Write a program that takes a matrix from user and check that the matrix is identity matrix or not?

Identity matrix 3x3:

1 0 0

0 1 0

0 0 1

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| Problem 6: |  |

Write a program that check whether a character array is palindrome or not. Palindrome is a string that remains the same when reversed.

**For Example:**

“A man, a plan, a canal, Panama”

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| Problem 7: |  |

Write a program that create char array of size 30 and ask user to enter the data and your program should convert capital letters to small and vice versa. There is a difference of value 32 between the upper- and lower-case values. e.g., ascii value of ‘A’ is 65 and for ‘a’ it is 97. You need subtraction or addition to convert the cases.

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| Problem 8: |  |

Write a program that creates a character array of size 100. Prompt the user to enter the data using cin.getline. Assume that user will enter the first and second name separated by space. Your task is shift the second name before the first name. e.g.,

**David Warner 🡺 Warner David**