

Course:	Structured Programming Methodology			Semester:	I	Date:	
Division:		Batch:				SET	D
Exam:	OST			Time:		Roll No:	

Q1	Attempt Any ONE [Show all test Cases in output.]	Marks						
1	<p>Write a program that multiplies two matrices ($A \times B$) entered by the user using a user defined function. The result should be displayed in the main function.</p> <p>Sample test cases:</p> <table border="1"> <thead> <tr> <th>Test Case 1</th> <th>Test Case 2</th> <th>Test Case 3</th> </tr> </thead> <tbody> <tr> <td> Input: Matrix A (2×3): 1 2 3 4 5 6 Matrix B (3×2): 7 8 9 10 11 12 Output: 58 64 139 154 </td><td> Input: Matrix A (2×2): 1 2 3 4 Matrix B (2×2): 5 6 7 8 Output: 19 22 43 50 </td><td> Input: Matrix A (2×3): 1 2 3 4 5 6 Matrix B (2×2): 7 8 9 10 Output: Matrix multiplication not possible (c1 != r2) </td></tr> </tbody> </table> <p style="text-align: center;">OR</p>	Test Case 1	Test Case 2	Test Case 3	Input: Matrix A (2×3): 1 2 3 4 5 6 Matrix B (3×2): 7 8 9 10 11 12 Output: 58 64 139 154	Input: Matrix A (2×2): 1 2 3 4 Matrix B (2×2): 5 6 7 8 Output: 19 22 43 50	Input: Matrix A (2×3): 1 2 3 4 5 6 Matrix B (2×2): 7 8 9 10 Output: Matrix multiplication not possible (c1 != r2)	15
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2A	<p>Implement a function that finds the maximum number from a sequence entered by the user. The result should be displayed in the main function.</p> <p>Sample test cases:</p> <table border="1"> <thead> <tr> <th>Test Case 1</th> <th>Test Case 2</th> <th>Test Case 3</th> </tr> </thead> <tbody> <tr> <td> Input: n = 10 Sequence: 2 3 1 4 5 3 6 4 3 8 Output: 8 </td><td> Input: n = 0 Output: -1 </td><td> Input: n = 5 Sequence: 7 6 3 5 2 Output: 7 </td></tr> </tbody> </table>	Test Case 1	Test Case 2	Test Case 3	Input: n = 10 Sequence: 2 3 1 4 5 3 6 4 3 8 Output: 8	Input: n = 0 Output: -1	Input: n = 5 Sequence: 7 6 3 5 2 Output: 7	8
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2B	<p>Write a program that finds and prints the sum of each row and each column in each matrix. The result should be displayed in the main function.</p> <p>Sample test cases:</p> <table border="1"> <thead> <tr> <th>Test Case 1</th> <th>Test Case 2</th> <th>Test Case 3</th> </tr> </thead> <tbody> <tr> <td> Input: Matrix (2×2): 1 2 3 4 Output : 1 2 3 3 4 7 4 6 10 </td><td> Input: Matrix (3×2): 2 4 6 8 1 3 Output (4x3): 2 4 6 6 8 14 1 3 4 9 15 24 </td><td> Input: Matrix (2×3): 5 10 15 20 25 30 Output : 5 10 15 30 20 25 30 75 25 35 45 105 </td></tr> </tbody> </table>	Test Case 1	Test Case 2	Test Case 3	Input: Matrix (2×2): 1 2 3 4 Output : 1 2 3 3 4 7 4 6 10	Input: Matrix (3×2): 2 4 6 8 1 3 Output (4x3): 2 4 6 6 8 14 1 3 4 9 15 24	Input: Matrix (2×3): 5 10 15 20 25 30 Output : 5 10 15 30 20 25 30 75 25 35 45 105	7
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