Test Case	Input	Expected Output	Actual Output	Pass?
1: run through all options	yes, 456-456-4564, 45645-6456, 1 1 1, 2 2 2, 3 3 3, 4 4 4, 5 5 5, 6 6 6, a, yes, 444-555-6666, 44444-5555, 7 7 7, 8 8 8, 9 9 9, 0 0 0, 1 1 1, 2 2 2, b, yes, 777-777-7777, 88888-9999, 4 5 4, 6 7 6, 8 9 8, 1 2 1, 3 4 3, 5 6 5, c, yes, 333-333-3333, 45454-6666, 5 5 5, 6 6 6, 7 7 7, 9 9 9, 8 8 8, 7 7 7, d, no	Your first 3 x 3 matrix is: 1 1 1 2 2 2 3 3 3 Your second 3 x 3 matrix is: 4 4 4 5 5 5 6 6 6 You selected addition. The results are: 5 5 5 7 7 7 9 9 9 The Transpose is: 5 7 9 5 7 9 5 7 9 The row and column mean values of the results are: Row: 5.00 7.00 9.00 Column: 7.00 7.00 7.00 Your first 3 x 3 matrix is: 7 7 7 8 8 8 9 9 9 Your second 3 x 3 matrix is: 0 0 0 1 1 1 2 2 2 You selected subtraction. The results are: 7 7 7 7 7 7 7 7 7 The Transpose is: 7 7 7 7 7 7 7 7 7 The row and column mean values of the results are: Row: 7.00 7.00 7.00 Column: 7.00 7.00 7.00	same	yes

1: run through all options		Your first 3 x 3 matrix is: 4 5 4 6 7 6 8 9 8 Your second 3 x 3 matrix is: 1 2 1 3 4 3 5 6 5 You selected matrix multiplication. The results are: 4 10 4 18 28 18 40 54 40 The Transpose is: 4 18 40 10 28 54 4 18 40 The row and column mean values of the results are: Row: 6.00 21.33 44.67 Column: 20.67 30.67 20.67 Your first 3 x 3 matrix is: 5 5 5 6 6 6 7 7 7 Your second 3 x 3 matrix is: 9 9 9 8 8 8 7 7 7 You selected element by element multiplication. The results are: 45 45 45 48 48 48 49 49 49 The Transpose is: 45 48 49 45 48 49 45 48 49 The row and column mean values of the results are: Row: 45.00 48.00 49.00 Column: 47.33 47.33 47.33 Thank you for visiting the Python Matrix Application. Good day.		

2: invalid input	4s7, yes, 4s7-56s-p8te, 444-555-6666, 45dsa-65fs, 44444-5555, 1 2 3 4, 1 2 3, f s g, 1 2 3, 4 5 6, 4.2 2.5 3.3, 1, 1 2 3, 4 5 6, 7 8 9, 5 5.6 5, 1 2 3, 4 5 6, 7 8 9, 4s7, a	Invalid Entry. Enter yes or no: Your phone number is not in correct format. Please re-enter. Your zipcode is not in correct format. Please re-enter. Invalid entry. Please reenter (X X X). Invalid entry. Please reenter. Invalid entry. Please reenter. Enter the first 3 x 3 matrix: Invalid entry. Please reenter (X X X). Your first 3 x 3 matrix is: 1 2 3 4 5 6 7 8 9 Invalid entry. Please reenter. Your second 3 x 3 matrix is: 1 2 3 4 5 6 7 8 9 Invalid Entry. Enter a, b, c, or d: You selected addition. The results are: 2 4 6 8 10 12 14 16 18 The Transpose is: 2 8 14 4 10 16 6 12 18 The row and column mean values of the results are: Row: 4.00 10.00 16.00 Column: 8.00 10.00 12.00 Do you want to play the Matrix game? (yes or no)	same	yes