

Task 1	<p>What will be printed on the screen</p> <pre>import numpy as np list1 = [2,3,4,5,10] list2 = [True,True,False,False,True] x1 = np.array(list1) y1 = np.array(list2) z1 = x1[y1] print (z1)</pre> <p>Also, what will be the output when</p> <p>(i) list1 = [2,3,1,5], list2=[True,True,True,True] (ii) list1 = [2,3,1,5], list2=[False,False,False,False] (iii) list1 = [2,3,1,5], list2=[True,False,True,False] (iv) list1 = [10], list2=[True] (v) list1 = [6], list2=[False]</p>								
Task 2	<p>What will be printed on the screen</p> <pre>import numpy as np list1 = [4,10,2,15,6,3] y = 4 x1 = np.array(list1) y1 = x1 > y z1 = x1[y1] print(z1) y2 = x1 < y z2 = x1[y2] print(z2) y3 = x1==y z3 = x1[y3] print(z3)</pre> <p>Also, what will be the output when</p> <p>(i)list1 = [3,5,4,5,3,6], y=3 (ii)list1 = [3,5,4,5,3,6], y=4 (iii)list1 = [3,5,4,5,3,6], y=5 (iv)list1 = [4,4], y=3 (v)list1 = [4,4], y=4</p>								
Task 3	<p>The marks of an examination have been given as a list. The students who score 75 or more get A, 60 or more get B and the rest get C. Given the list of students how many students get grade A, B and C.</p>								
Test Cases	<table><tr><th>Input</th><th>Expected Output</th></tr><tr><td>[50,70,80,90,55,65,75,80,85]</td><td>A:5, B:2, C:2</td></tr><tr><td>[51,52,61,65,50]</td><td>A:0, B:2, C:3</td></tr><tr><td>[81]</td><td>A:1, B:0, C:0</td></tr></table>	Input	Expected Output	[50,70,80,90,55,65,75,80,85]	A:5, B:2, C:2	[51,52,61,65,50]	A:0, B:2, C:3	[81]	A:1, B:0, C:0
	Input	Expected Output							
	[50,70,80,90,55,65,75,80,85]	A:5, B:2, C:2							
	[51,52,61,65,50]	A:0, B:2, C:3							
[81]	A:1, B:0, C:0								

Task 4	The marks of an examination have been given as a list. The students who got marks more than the mean get A grade while the rest get B grade. Given the list of students how many students get grade A and B.	
Test Cases	Input	Expected Output
	[50,70,80,90,55,65,75,80,85]	A:5, B:4
	[51,52,61,65,50]	A:2, B:3
	[81,90,88,87,55]	A:4, B:1

Task 5	The daily sales for week1 is given in list1 and week2 in list2. Print the following - How many days did week1 have more sales than week2 - How many day did week2 have more sales than week1 - How many did were the sales the same	
Test Cases	Input	Expected Output
	[45,47,50,41,55,61,66], [37,48,44,41,57,61,64]	Week1 more : 3 Week2 more : 2 Equal : 2
	[12,15,12,15,21,22,14], [12,15,12,15,21,22,14]	Week1 more : 0 Week2 more : 0 Equal : 7