

NumPy

1. Construct an array from the list: [1,2,3]
2. Cast it into floats
3. Create an array of int ranging from 0-10
4. Create an array containing 7 evenly spaced numbers between 0 and 23
5. Create an array with shape (2,5,1,5,2,1) containing only the number 5
6. Eliminate all length-1 dimensions
7. Reshape the resulting array from shape (2,5,3,2) to only 2D
8. Calculate the mean, std, var, max, min, of an array with shape (3,3,12,3) containing floats drawn from a normal distribution with mean 21 and sigma 4.5
9. Do the same but not on all elements but only on the 2nd dimension
10. Transform the array such that it is only 1d
11. Remove all values smaller 15 and larger 26
12. Clip all values smaller 15 and larger 26 to NaN
13. Calculate the sum of the resulting array. It should not be NaN!
14. Convert the NaN's to 0.0
15. Save the array and load it again