Exercises

1. Create a 1D array representing the ages of 20 patients.
2. Create a 2D array representing the daily stock prices of 5 companies over 30 days.
3. Create a 1D array representing the monthly sales figures for a product over 12 months.
4. Create a 1D array representing temperature readings from a sensor over 24 hours.
5. Create a 2D array representing the inventory of 10 products in 5 different stores.
6. Create a 1D array representing the test scores of 50 students.
7. Create a 1D array representing the daily number of passengers on a bus route over 7 days.
8. Create a 2D array representing the yield of 3 crops across 4 seasons.
9. Create a 1D array representing the daily energy consumption of a household over 30 days.
10. Create a 1D array representing the number of calls made by 100 customers in a month.
11. Find the shape of an array representing blood pressure readings of 50 patients taken 3 times a day.
12. Determine the data type of an array representing the quarterly revenue of 10 companies.
13. Check the number of elements in an array representing the click-through rates of 20 online ads.
14. Find the size of an array representing humidity readings from 5 sensors over 7 days.
15. Determine the dimensions of an array representing the sales of 15 products across 12 months.
16. Check the data type of an array representing the grades of 100 students in 5 subjects.
17. Find the shape of an array representing the GPS coordinates of 10 delivery trucks over 24 hours.
18. Determine the size of an array representing rainfall measurements in 8 regions over 12 months.
19. Check the number of dimensions of an array representing the power output of 3 solar panels over 30 days.
20. Find the data type of an array representing the data usage of 50 customers over 12 months.
21. Reshape an array representing heart rate readings of 30 patients taken 4 times a day into a 2D array.
22. Transpose an array representing the monthly stock prices of 5 companies over 12 months.
23. Flatten an array representing the sales of 10 products across 5 regions.
24. Concatenate two arrays representing temperature readings from two sensors over 24 hours.
25. Split an array representing the inventory of 20 products into 4 equal parts.
26. Stack two arrays representing the test scores of 50 students in two different subjects vertically.
27. Split an array representing the GPS coordinates of 10 delivery trucks into two groups.
28. Reshape an array representing the yield of 4 crops over 3 seasons into a 3D array.

29. Concatenate two arrays representing the energy consumption of two households over 30 days.
30. Split an array representing the call durations of 100 customers into 5 equal parts.
31. Extract the blood pressure readings of the first 10 patients from a 2D array.
32. Extract the stock prices of the last 5 days from a 2D array.
33. Extract the sales figures of the top 5 products from a 1D array.
34. Extract the temperature readings from the first 12 hours of a 1D array.
35. Extract the inventory of the first 3 stores from a 2D array.
36. Extract the test scores of the top 10 students from a 1D array.
37. Extract the GPS coordinates of the first 5 delivery trucks from a 2D array.
38. Extract the yield of the first 2 crops from a 2D array.
39. Extract the energy consumption of the first 15 days from a 1D array.
40. Extract the call durations of the first 20 customers from a 1D array.
41. Create a 2D array representing the BMI of 50 patients and calculate the average BMI.
42. Create a 2D array representing the quarterly profits of 10 companies and find the company with the highest profit.
43. Create a 1D array representing the conversion rates of 20 marketing campaigns and find the campaign with the lowest conversion rate.
44. Create a 2D array representing the temperature and humidity readings from 5 sensors over 7 days and find the sensor with the highest average temperature.
45. Create a 2D array representing the sales of 15 products across 12 months and find the product with the highest total sales.
46. Create a 2D array representing the grades of 100 students in 5 subjects and find the subject with the highest average grade.
47. Create a 2D array representing the GPS coordinates of 10 delivery trucks over 24 hours and find the truck that traveled the farthest.
48. Create a 2D array representing the yield of 4 crops over 3 seasons and find the crop with the highest average yield.
49. Create a 1D array representing the daily energy consumption of a household over 30 days and find the day with the highest consumption.
50. Create a 1D array representing the data usage of 50 customers over 12 months and find the customer with the highest average usage.