

# Knowledge check

3 minutes

Answer the following questions to check your learning.

1. You have a NumPy array with the shape (2,20). What does this tell you about the elements in the array?

- ☒ The array is two dimensional, consisting of two arrays each with 20 elements ✓

**That is correct. A shape of (2,20) indicates a multidimensional array with two arrays, each containing 20 elements.**

- ☐ The array contains 2 elements, with the values 2 and 20
- ☐ The array contains 20 elements, all with the value 2

2. You have a Pandas DataFrame named df\_sales containing daily sales data. The DataFrame contains the following columns: year, month, day\_of\_month, sales\_total. You want to find the average sales\_total value. Which code should you use?

- ☐ df\_sales['sales\_total'].avg()
- ☒ df\_sales['sales\_total'].mean() ✓

**That is correct. This code will return the average of the sales\_total column values.**

- ☐ mean(df\_sales['sales\_total'])

3. You have a DataFrame containing data about daily ice cream sales. You use the corr method to compare the avg\_temp and units\_sold columns, and get a result of 0.97. What does this result indicate?

- ☐ On the day with the maximum units\_sold value, the avg\_temp value was 0.97
- ☒ Days with high avg\_temp values tend to coincide with days that have high units\_sold values ✓

**That is correct. The corr method returns the correlation, and a value near 1 indicates a positive correlation.**

- ☐ The units\_sold value is, on average, 97% of the avg\_temp value

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