Course:	Data Science Summer School 2024
Assessment:	Quiz - Numpy
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Score:	80% Passed!
Points:	8 / 10
Time spent:	00:01:37
Date submitted:	29 July, 2025
Attempt#:	1

Which programming language is commonly used for data analysis? 1 / 1

- ○ Java
- ○ C++
- ⦿ Python
- ○ Ruby

> Correct answer
>
> Python

What is NumPy primarily used for in Python? 1 / 1

- ○ Website Development
- ○ Game Development
- ⦿ Mathematical and scientific computations
- ○ GUI Application Development

> Correct answer
>
> Mathematical and scientific computations

In Python's NumPy, what is the primary data structure used for handling numerical data? 1 / 1

- ○ List
- ○ Tuple
- ◉ Array
- ○ Dictionary

Correct answer

Array

In Python's NumPy, how do you create a 2-dimensional array of size 3x3 filled with all zeros? 1 / 1

- ◉ numpy.zeros([3, 3])
- ○ numpy.array([3, 3])
- ○ numpy.full([3, 3], 0)
- ○ numpy.empty([3, 3])

Correct answer

numpy.zeros([3, 3])

What does NumPy Indexing and Slicing allow you to do? 0 / 1

- ◉ To modify elements in an array
- ○ To change the type of array
- ○ To selectively access and modify certain values in an array
- ○ To delete values from an array

Correct answer

To selectively access and modify certain values in an array

What is NumPy Broadcasting? 1 / 1

- ○ A method for synchronizing data between different NumPy arrays
- ○ A method for reducing the dimensionality of arrays
- ○ A method for sending data over a network using NumPy
- ◉ A method for performing arithmetic operations on arrays of different shapes

> Correct answer
>
> A method for performing arithmetic operations on arrays of different shapes

What is the use of NumPy's mathematical functions? 1 / 1

- ○ To sort the elements in an array
- ◉ To perform mathematical operations on arrays
- ○ To convert arrays to lists
- ○ To copy arrays

> Correct answer
>
> To perform mathematical operations on arrays

In the context of NumPy's linear algebra functions, what does the numpy.linalg.det function do? 0 / 1

- ○ Calculate the determinant of a square matrix
- ○ Calculate the inverse of a square matrix
- ◉ Solve a system of linear scalar equations
- ○ Calculate the eigenvalues of a matrix

> Correct answer
>
> Calculate the determinant of a square matrix

How can NumPy be used in data analysis? 1 / 1

- ○ To model the rules of a sport
- ○ To create visualizations of game strategies
- ◉ To analyze and interpret complex numerical data

○ To build a video game

What is the main advantage of using Python and NumPy for data analysis? 1 / 1

○ They are free to use

◉ They allow for the efficient handling and processing of large data sets

○ They have excellent support for vector graphics

○ They are the industry standard for coaching