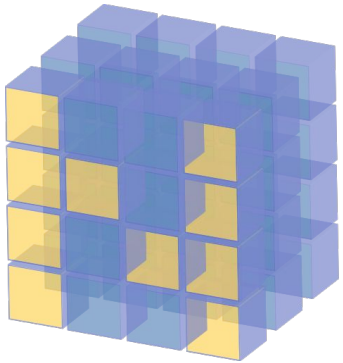
What is Shaping Data?

- **How do you know if data has realistic values?**
- **How do you know if data is the correct shape for mathematical operations?**
  - Shaping data!

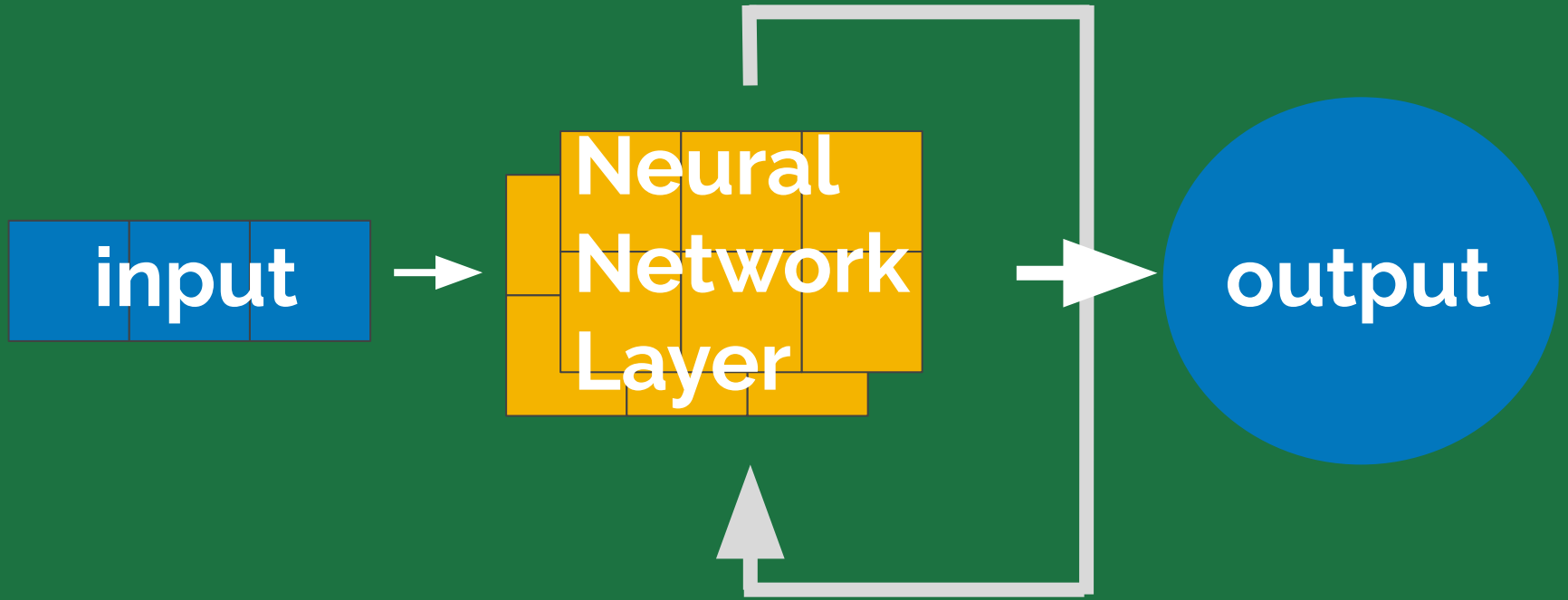
How can you reshape data?

- Python's NumPy package

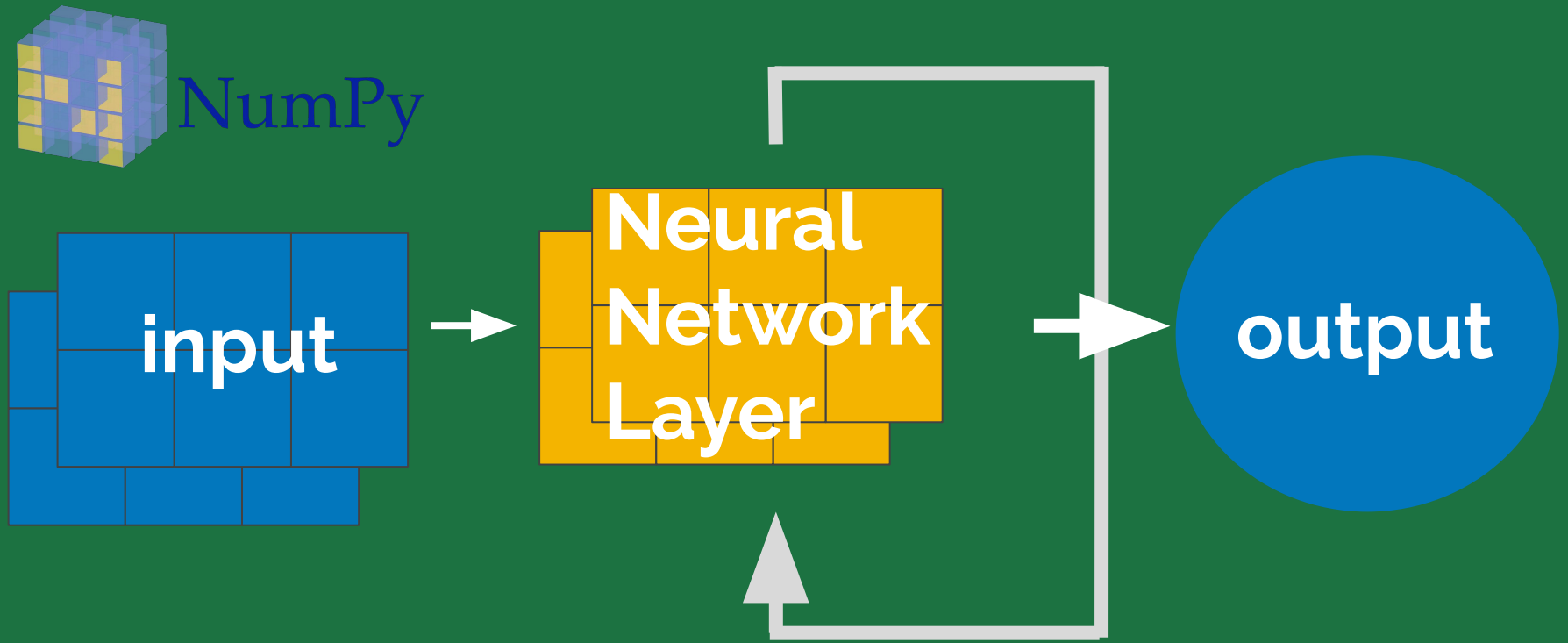


NumPy

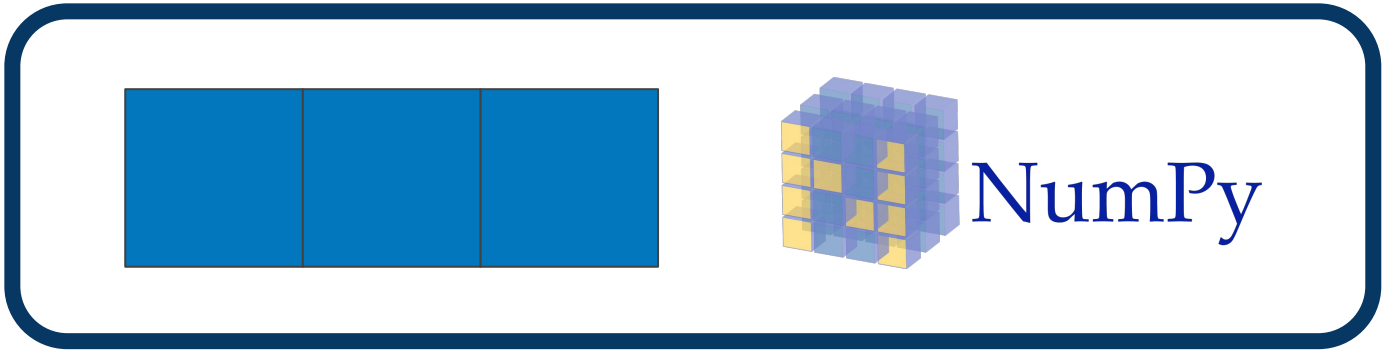
- Input data, layers of neurons, and output data come in arrays of various shapes


input
Neural
Network
Layer
output

- NumPy lets you reshape arrays


NumPy
input
Neural
Network
Layer
output

- NumPy's ndarray type is a wrapped around Python's list type



- NumPy's type is a decorator
- Provides extra methods for working with arrays

- Shapes of arrays must be manipulated to work with some mathematical operations
- Some dimensions of matrices must match

What is Shaping Data? ✓

Let's begin...