An easy method for determining the best number for K is the elbow curve. Elbow curves get their names from their shape: they turn on a specific value, which looks a bit like an elbow!

To create an elbow curve, we'll plot the clusters on the x-axis and the values of a selected objective function on the y-axis.

**Inertia** is one of the most common objective functions to use when creating an elbow curve. While what it's actually doing can get into some pretty complicated math, basically the inertia objective function is measuring the amount of variation in the dataset.

So, for our elbow curve, we'll plot the number of clusters (also known as the values of K) on the x-axis and the inertia values on the y-axis.

Let's see what happens when we plot our K values versus inertia for the preprocessed iris dataset created earlier.

We will first take a look at the elbow curve using this dataset, since we know that there should be three clusters.