Why Vectors

Variables are named 'boxes' that hold a value. But, when you want to manage **a collection** of similar and **closely related** values, using individual, named variables is unwieldy. Imagine using named variables to track the scores for each student in this section of CS150; it would be nigh-on impossible.

For instance, to print the statistics for one exam, for one section, you'll need to write a function like this:

```cpp
void printClassStatistics(istream& grades)
{
    // Grade for each student
    double student01, student02, student03, student04,
        student05, student06, student07, student08, student09,
        student10, student11; // And so on . . . to student45
    // Read grades from stream
    grades >> student01 >> student02 >> student03 >> student04
        >> student05 >> student06 >> student07 >> student08
        >> student09 >> student10 >> student11; // and so on
}
```

Now, imagine how **long and unwieldy** it would become when it came time to add the scores for a quiz. You'd need a separate statement for each student variable.

If you think **"There must be a better way!"** you're right; **there is**.