

# Why Functional Programming?

Why avoid objects and side effects?

**Formal Provability** Line-by-line invariants

**Modularity** Encourages small independent functions

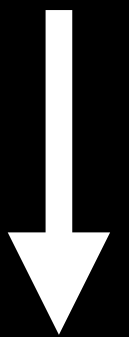
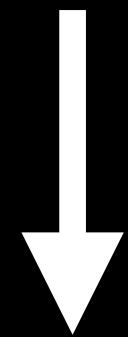
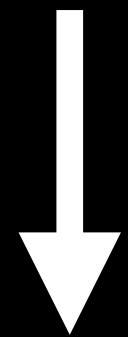
**Composability** Arrange existing functions for new goals

**Easy Debugging** Behavior depends only on input

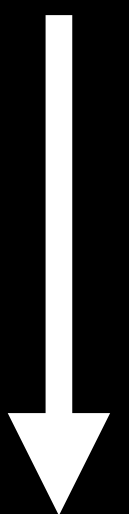
Let's Get Started!

```
[len(s) for s in languages]
```

```
["python", "perl", "java", "c++"]
```



```
map(len, languages)
```



```
< 6 , 4 , 4 , 3 >
```