

# WRITE BETTER PYTHON

## LAMBDA EXPRESSIONS

JOANNA POWER  
MAY 2016

# WHAT ARE THEY?

Anonymous functions that  
evaluate a single expression.

i.e. **lambda** x: x\*x

# WHAT AREN'T THEY?

A good place for complicated or reusable code.

HOW DO I WRITE  
ONE?

```
lambda x: x**3
```

# HOW DO I USE ONE?

```
a = [1,2,3]
```

```
map(lambda x: x**3, a)
```

```
-> [1,8,27]
```

```
filter(lambda x: x%2 == 0)
```

```
-> [2]
```

# HOW DO I AVOID THEM?

```
a = [1,2,3]
```

```
[x**3 for x in a]
```

```
-> [1,8,27]
```

```
[x for x in a if x%2 == 0]
```

```
-> [2]
```

# RECAP

- Lambda expressions are used to define short, simple anonymous functions.
- Mainly used with map, filter, sort, and UI programming.
- You can write Python without them, but you need to understand them.

# RECOMMENDED RESOURCES

- [https://pythonconquerstheuniverse.wordpress.com/2011/08/29/lambda\\_tutorial/](https://pythonconquerstheuniverse.wordpress.com/2011/08/29/lambda_tutorial/)
- <http://python-history.blogspot.com/2009/04/origins-of-pythons-functional-features.html>