

## In-Class Worksheet

Discrete Math & Functional Programming— CSCI 054— Spring 2024

Instructor: Osborn

What do the following evaluate to (type and value)?

```
ghci> map length ["ab", "aaaaa", "b"]
```

```
ghci> map (^3) [1,3,6]
```

```
ghci> headA x = (head x) == 'a'
```

```
ghci> filter headA ["ab", "aaaaa", "b"]
```

---

How would you implement the `map` function? The `filter` function?

---

The `mapish` function takes a list of functions and a single element `x`. It then returns a list

of the results of applying each function to `x`. Implement the `mapish` function.

What is the type of the function `foo`? What does the function do?

```
foo y zs = map (\x -> x^y) zs
```