## In-Class Worksheet Discrete Math & Functional Programming— CSCI 054— Spring 2025 Instructor: Osborn

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

foo y zs = map (
$$\xspace x - y$$
) zs

Write a function sumList that returns the sum of a list of numbers. Write a function prodList that returns the product of a list of numbers.

```
foldr f x [y1, y2, ... yk] = f y1 (f y2 (... (f yk x) ... )) foldl f x [y1, y2, ... yk] = f (... (f (f x y1) y2) ...) yk
```

What do the following evaluate to? Why?

What does the following evaluate to?