

QUIZ!

Use a full sheet of 8½x11" paper. (Half sheet? Half credit!)

Put only your last name in the far upper left hand corner of the sheet, where a staple would hit it. It's OK to write **BIG**, just start in the corner!

Mitchell

AVOID A ½-POINT DEDUCTION!

Keep answers short! Avoid full sentences. Feel free to abbreviate.

3 questions; 3 minutes; 3 points. Plus a ½ point E.C. question.

Question 1 is worth two points.

Numbering responses may help you avoid overlooking a question. You may go ahead and number your paper.

Quiz 5, February 18, 2016

3 minutes; $2 + \frac{1}{2} + \frac{1}{2}$ points

1. Consider folding a list of strings into the total length of the strings:

```
> foldl f 0 ["just", "a", "test"]  
9
```

```
> foldl f 0 ["abc"]  
3
```

For this problem you are to write a folding function **f** that would work as shown with the **foldl** calls above

2. What's a difference between **foldl** and **foldr**?
3. What's a difference between **foldr** and **foldr1**?

Solutions

1. `> let f acm elem = acm + length elem`

`> foldl f 0 ["just", "a", "test"]`

`9`

`> foldl f 0 ["abc"]`

`3`

2. *What's a difference between **foldl** and **foldr**?*

foldl folds the list from left to right but **foldr** folds from right to left.

3. *What's a difference between **foldr** and **foldr1**?*

foldr needs a "zero" value, for the case of an empty list.