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 half-point EC.

Question 3 is worth two points.

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

Quiz 3, February 2, 2016
3 minutes; ½ + ½ + 2 points

1. Add parentheses to the following expression to show the order of operations: **`a b + x y z`**

2. The **`length`** function produces the length of a list. What's the type of **`length`**?

3. Write a function **`nzs`** that returns the number of zeroes in a list. (2 points!)

```
> nzs [5,0,0,5]
2
```

EC ½ point:
Write a function **`f`** whose type is inferred to be **`a -> a -> a`**. Be sure that **`a`** doesn't have a class constraint, like **`Eq a`**.

Solutions

1. *Add parentheses to the following expression to show the order of operations:* **`a b + x y z`**

   `(a b) + ((x y) z)`

2. *The* **`length`** *function produces the length of a list. What's the type of* **`length`**? **`[a] -> Int`**

3. *Write a function* **`nzs`** *that returns the number of zeroes in a list.*

   Two solutions:

```
nzs [] = 0
nzs (0:t) = 1 + nzs t
nzs (_:t) = nzs t

nzs [] = 0
nzs (h:t)
    | h == 0 = 1 + nzs t
    | otherwise = nzs t
```

EC ½ point: Write **`f`** *whose type is inferred to be* **`a -> a -> a`**.

```
f x y = head [x, y]
```