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 paper, where a staple would hit it. (It helps when sorting quizzes!)

Mitchell

AVOID A ½-POINT DEDUCTION!

Numbering responses may help you avoid overlooking a question; it's ok to go ahead and pre-number your sheet.

Feel free to abbreviate, like **otw** for **otherwise**.

odd :: Integer -> Bool returns true iff its argument is odd

"iff" means "if and only if"

3 minutes; 1 + ½ + ½ + **0** + **0** points; 2 pts total

Quiz 4, February 3, 2015
3 minutes; 1 + ½ + ½ + 0 + 0 points; 2 pts total

1. Write **sum list**, which returns the sum of the numbers in **list**.

2. Write **co list**, which returns a count of the odd numbers in **list**.

3. Observe the following and answer this: What's the type of **isLetter**?

```
> :type isLetter
isLetter :: Char -> Bool
```

Questions 4 and 5 (below) are worth zero points! (I'm just curious.)

4. Write **mem x list**, which returns **True** iff **x** is in **list**.

5. Write **last list**, which returns the last element of **list**. Return **undef** for the empty list.

Solutions

```
sum [] = 0
sum (x:xs) = x + sum xs

co [] = 0
co (x:xs)
   | odd x = 1 + co xs
   | otherwise = co xs
```

The type of **isLetter** is **Char -> Bool**

```
mem _ [] = False
mem e (x:xs)
   | e == x = True
   | otherwise = e `mem` xs

last [] = undefined
last [x] = x
last (_:xs) = last xs
```