

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's OK to write **BIG**, just start in the corner!)

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**.

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

Quiz 5, February 10, 2015

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

1. Write **sum list**, which returns the sum of the numbers in **list**.
(+ $\frac{1}{2}$ point E.C. if idiomatic Haskell!)
2. Write **map**.
3. What is the type of **map**?
4. Fill in the blank below such the value shown (**[1,4]**) is produced.
> map _____ [[1,2,3],[4,5]]
[1,4]
5. What is the relationship between the lengths of the input and output lists for **map**?
6. Zero points: Have you tried the a2 tester yet?

Solutions

`sum [] = 0`

`sum (x:xs) = x + sum xs`

`map _ [] = []`

`map f (x:xs) = f x : map f xs`

map's type is **(a -> b) -> [a] -> [b]**

> map head [[1,2,3],[4,5]]

[1,4]

map's output list is always the same length as the input list.