QUIZ!

## Quiz Stuff

Use a full sheet of $8 \frac{1}{2} \times 11$ " paper. (Half sheet? Half credit!)
Put your last name and NetID in the far upper left hand corner of the paper, where a staple would hit it. (It helps us sort quizzes!)

Mitchell, whm

No need to write out questions. It's ok to abbreviate answers.
Numbering responses may help you avoid overlooking a question; it's ok to go ahead and pre-number your sheet.

3 minutes; one 3-point question. $1 / 2$ point E.C. if no singletons.

> Quiz 11, April 18, 2014
> 3 Minutes; 3 points $+\underline{1} 2$ point E.C. if no singletons!

1. Write a predicate middle(+List, ?Middle) where Middle is List with the first and last elements removed.
```
?- middle([a,b,c,d,e],M).
M = [b, c, d] ;
false.
```

?- middle([1,2],[]).
true.
?- middle([1],M).
false.

As a reminder, here's the documentation for append:
?- help(append/3).
append(?List1, ?List2, ?List1AndList2)
List1AndList2 is the concatenation of List1 and List2

Usage:

$$
\begin{aligned}
& ?-\text { middle([a,b,c,d,e],M). } \\
& \mathrm{M}=[\mathrm{b}, \mathrm{c}, \mathrm{~d}] ; \\
& \text { false. }
\end{aligned}
$$

Solution:
middle( $\mathrm{L}, \mathrm{M}$ ) :-
append([ _ ], Rest, L),
append(M, [ _ ], Rest).

