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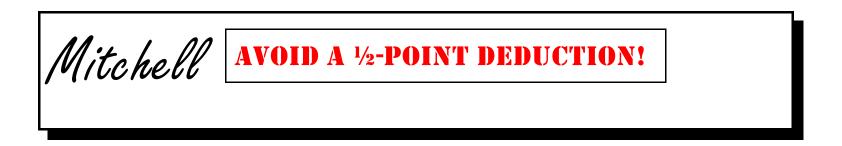
Use a full sheet of 8½x11" paper. (Half sheet? Half credit!)

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.

4 questions; 4 minutes; 4 points, plus a ½-point E.C.

Numbering responses may help you avoid overlooking a question.

You may go ahead and number your paper.

Quiz 13, April 26, 2016
4 minutes; 4 points

1. What would Prolog show for **A** and **B** for the folllowing query?
   ```
   ?- [_,A|B] = [1,2,3,4].
   ```

2. Without using **append**, write **head(List, Elem)**.

3. Without using **append**, write **last(List, LastElem)**.

4. What are two predicates that can be used, respectively, to add or remove facts?

EC ½ point: Write **g(L,E)** that generates each element of **L** twice:
```
?- g([a,b],E).
E = a ;
E = a ;
E = b ;
E = b ;
false.
```

Solutions

1. *What would Prolog show for **A** and **B** for the folllowing query?*

```
?- [_,A|B] = [1,2,3,4].
A = 2, B = [3, 4].
```

2. *Without using **append**, write **head(List,Elem)**.*

```
head([H|_],H).
```

3. *Without using **append**, write **last(List, LastElem)**.*

```
last([X],X).
last([_|T],X) :- last(T,X).
```

4. *What are two predicates that can be used, respectively, to add or remove facts?* **assert** *and* **retract**

*EC: Write **g(L,E)** that generates each element of **L** twice.*

```
g([H|_],H).
g([H|_],H).
g([_|T],E) :- g(T,E).
```