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.

2 questions; 4 minutes; 4 points

Numbering responses may help you avoid overlooking a question.

You may go ahead and number your paper.

Quiz 14, April 28, 2016
4 minutes; 4 points

1. Briefly describe the general approach used to solve the pit-crossing puzzle in the slides.

2. Write a predicate **`inc`** that uses **`assert`** and **`retract`** to increment a counter maintained as a **`count/1`** fact. It reports the new value.

```
?- count(N).
N = 0.

?- inc.
Count is 1
true.

?- inc.
Count is 2
true.

?- count(N).
N = 2.
```

Solutions

1. *Briefly describe the general approach used to solve the pit-crossing puzzle in the slides.*

   Pick a plank from the supply. See if it can be placed without ending over a pit. If so, solve it from there using the remaining planks. If not, pick a different plank and try again.

2. *Write a predicate* **`inc`** *that uses* **`assert`** *and* **`retract`** *to increment a counter maintained as a* **`count/1`** *fact. It reports the new value.*

```
inc :-
   count(N0),
   retract(count(_)),
   N is N0+1,
   assert(count(N)),
   format('Count is ~w~n', N).
```