

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.

5 questions; 3 minutes; 2½ 3½ points.

Briefly raise your hand when you're done.

## Quiz 12, April 9, 2015

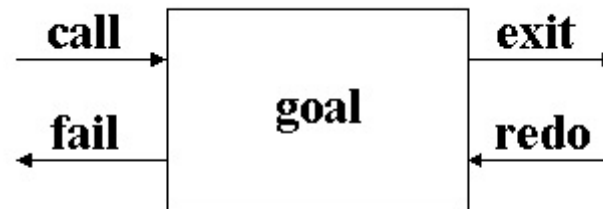
3 minutes;  $\frac{1}{2} + \frac{1}{2} + 1 + 1 + \frac{1}{2}$ ;  $2\frac{1}{2}$   $3\frac{1}{2}$  points total

1. Write an example of a structure with two terms.
2. Write an example of a predicate indicator.
3. Draw the box of the four-port model and label the ports. Be sure to include the arrows for the ports. (1 point)
4. Consider the following query:  
?-  $A=B$ , write( $A$ ), write(-),  $A=10$ , write( $B$ ),  $A=20$ .  
What does it output, if anything?  
Does it succeed or fail?
5. What is the following query asking?  
?- color(lettuce, $C1$ ), color(broccoli, $C2$ ),  $C1 == C2$ .

EC  $\frac{1}{2}$  point: Rewrite #5's query to make better use of the language.

# Solutions

1. Write an example of a structure with two terms. `a(b,c)`.
2. Write an example of a predicate indicator. `write/1`
3. Draw the box of the four-port model and label the ports. Be sure to include the arrows for the ports. (1 point)



4. Consider the following query:  
`?- A=B, write(A), write(-), A=10, write(B), A=20.`  
What does it output, if anything? `_GNum-10`  
Does it succeed or fail? It fails.
5. What is the following query asking?  
`?- color(lettuce,C1), color(broccoli,C2), C1 == C2.`  
Originally I wrote, "Are lettuce and broccoli the same color?" but  
"What color(s) do lettuce and broccoli have in common?" is more accurate.

EC 1/2 point: Rewrite #5's query to make better use of the language.

`?- color(lettuce,C), color(broccoli,C).`