Honor Pledge

On my honor, I have neither given nor received any unauthorized aid on this quiz.

By typing your first and last name in the space provided below you are electronically signing to indicate that:

(1) You are the person who is taking this quiz.
(2) You read and understood the Honor Pledge and you agree to be bound by it.

Write your answer below:

```
Xinhao Luo
```

Clear | Use Most Recent Submission

Question 1. (2pts) Scheme's scoping discipline is

Select one:
- ○ dynamic scoping
- ● static scoping

Clear | Use Most Recent Submission

Question 2. (2pts) Scheme's typing discipline is

Select one:
- ● dynamic typing
- ○ static typing

Clear | Use Most Recent Submission

Questions 3 and 4 refer to the following Scheme function:

```
(define (fun a b)
  (cond ((= a b) a)
        ((> a b) (fun (- a b) b))
        (else (fun a (- b a)))))
```

Question 3. (2pts) What does `fun` compute? Note: you may assume that the arguments are positive integers.

Write your answer below:

Press TAB to indent. Press ESC to advance from answer area.

```
Compute Greatest Common Divider of a and b
```

Clear | Use Most Recent Submission

Question 4. (2pts) `fun` is tail-recursive.

Select one:
- ○ false
- ● true

Clear | Use Most Recent Submission

Question 5. (2pts) Function `atomcount`, defined below, attempts to count the number of atoms nested in a list. Recall predicate `atom?` that we wrote in class — it returns true if given an object that is *not a pair* (i.e., an object we cannot take the `car` or the `cdr` of).

```
(define (atomcount lis)
  (cond ((atom? lis) 1)
        ((null? lis) 0)
        (else (+ (atomcount (car lis)) (atomcount (cdr lis))))))
```

`(atomcount '(1 (2 (3))))` yields

Select one:
- ○ 3
- ○ 4
- ● 6

Clear | Use Most Recent Submission

By clicking "Submit" you are confirming that you have read, understand, and agree to follow the Academic Integrity Policy.

Submit

Select Submission Version: Version #1 GRADE THIS VERSION | Do Not Grade This Assignment

Note: This version of your assignment will be graded by the instructor/TAs and the score recorded in the gradebook.

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10 / 10	**Autograding Total *(With Hidden Points)***	
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2 / 2	**HIDDEN: Test 7 Question 1**	
2 / 2	**HIDDEN: Test 8 Question 2**	
2 / 2	**HIDDEN: Test 9 Question 3**	
2 / 2	**HIDDEN: Test 10 Question 4**	
2 / 2	**HIDDEN: Test 11 Question 5**	
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