

## CSC104 Quiz #3

Name:

Assume that DrRacket has been started up in the Intermediate Student with lambda language, and that the following commands been run (pic:hacker and pic:calendar are images provided by picturing-programs):

```
(require picturing-programs)

; grow-2-percent : image -> image
; Produce 2 percent larger version of im
(check-expect (grow-2-percent pic:calendar)
  (scale 1.02 pic:calendar))
;
(define (grow-2-percent im) (scale 1.02 im))

; start the universe!
(big-bang pic:hacker
  (on-tick flip-vertical 1)
  (on-draw show-it))
```

If the above is run, it displays a hacker flipping vertically every 1 second. For full marks, answer at least two of the following three questions correctly.

1. What happens if the line

```
(big-bang pic:hacker
```

... is replaced by

```
(big-bang pic:calendar
```

... and then the code is run?

2. What happens if only the line

```
(on-tick flip-vertical 1)
```

... is replaced by

```
(on-tick grow-2-percent 1)
```

... and then the code is run?

3. Suppose the change above (Question 2) was made, and the definition of rotate6 was changed to:

```
(define (grow-2-percent im) (scale 1.08 im))
```

... What happens when the code is run?