

CS2613 assignment 1

David Bremner

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Introduction

```
(define-struct Z ())  
(define-struct S (pred))
```

In order to make tests easier to read, we will pre-define some structure based numbers.

```
(define zero (make-Z))  
(define one (make-S zero))  
(define two (make-S one))  
(define three (make-S two))  
(define four (make-S three))
```

What to hand in, and how to hand it in, and when

Marking

Question 1

```
(check-expect (sub zero zero) zero)
(check-expect (sub one zero) one)
(check-expect (sub one one) zero)
(check-error (sub one two) "negative numbers not im
```

Question 2

```
(check-expect (less zero zero) false)
(check-expect (less zero one) true)
(check-expect (less one zero) false)
(check-expect (less two one) false)
(check-expect (less one two) true)
```

Question 3

```
(check-error (div zero zero) "divide by zero")  
(check-error (div one zero) "divide by zero")  
(check-expect (div one one) one)  
(check-expect (div three two) one)  
(check-expect (div four two) two)
```