```
(define (cons x y)
  (lambda (m) (m x y)))
(define (car z)
  (z (lambda (p q) p)))
```

To verify with the substitution model, write out the steps for the evaluation of (car (cons 1 2)).

```
(car (cons 1 2))
(car (lambda (m) (m 1 2)))
((lambda (m) (m 1 2)) (lambda (p q) p))
((lambda (p q) p) 1 2)
```

1

This representation works because it will apply a procedure that selects the first of two arguments to the arguments of cons. It does this by applying a procedure that will take its argument and apply it to the arguments of cons.

The corresponding definition of cdr is as follows.

```
(define (cdr z)
  (z (lambda (p q) q)))
```

And here is the substitution model for (cdr (cons 1 2)).

```
(cdr (cons 1 2))
(cdr (lambda (m) (m 1 2)))
((lambda (m) (m 1 2)) (lambda (p q) q))
((lambda (p q) q) 1 2)
```

2