

**Recitation 16b, April 18**

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**Higher Order Procedure Fold-Right Problems**

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Write the following procedures in terms of fold-right.

1. map

```
(define (map op seq)
  (fold-right
    (lambda (elt rtn)
      (cons (op elt) rtn))
    '()
    seq))
```

2. append

```
(define (append seq1 seq2)
  (fold-right cons
    seq2 seq1))
```

3. length

```
(define (length seq)
  (fold-right
    (lambda (elt rtn)
      (+ 1 rtn))
    0
    seq))
```

4. reverse

```
(define (reverse seq)
  (fold-right (lambda (elt rtn)
    (append rtn (list elt)))
    '()
    seq))
```