

Recitation 7, Friday March 2

Higher Order Procedure Notes

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1. Using higher order procedures: *procedures that return procedures*

```
(* 2 5)
(* 2 8)
```

```
(* 3 2)
(* 3 4)
```

```
(define (double n)
```

```
(define (triple n)
```

```
)
```

```
)
```

```
(define (make-mult x)
```

```
)
```

```
(define double
```

```
(define triple
```

```
)
```

```
)
```

2. Using higher order procedures: *procedures that take procedures as arguments*

very useful hops: map, filter, (fold-right, fold-left next recitation)

examples:

```
(map double (list 1 2 3 4)) => (2 4 6 8)
```

```
(filter even? (list 1 2 3 4)) => (2 4)
```

```
(define (map op items)
```

```
(define (filter op items)
```

```
)
```

```
)
```