

Higher order functions

•Desatleastoneoff:

✓ takes a function as parameter

✓ returns a function

 How should this function be implemented?























































































































































































































































fun *appTwice* (*i*: *Int*, *f*: (*Int*) → *Int*) : *Int* = *f* (*f* (*i*))

```
fun addTwo(): (Int) → Int {  
  return { i → i + 2 }  
}
```

Higher order functions

- Does at least one of:

✓ takes a function as parameter

```
fun applyTwice(i: Int, f: (Int) → Int): Int = f(f(i))
```

✓ returns a function

```
fun addTwo(): (Int) → Int {  
    return { i → i + 2 }  
}
```

 How should this function be implemented?

```
fun twice(f: (Int) → Int): (Int) → Int = TODO()
```

Function types