1 COMP304 Week 4 Exercises

1.1 Ex 1

Write a function that returns the nth element in a list

```
findN :: [a] -> Int -> a
```

1.2 Ex 2 - Hard

Write a function to return the maximum value of a list using recursion. Hint: you might need to keep things in the list

```
max :: [Int] -> Int
```

1.3 Ex 3

Write a function to return the maximum value of a list using higher order functions

```
maxFO :: [Int] -> Int
```

1.4 Ex 4 - Very Hard

Write a function which finds the greatest difference between two consecutive elements in a list

```
maxDiff :: [Int] -> Int
```

Hint: This will use a lot of more complex higher order functions