

BITS F301 – Principles of Programming Languages

Assignment 3

Function Codes in Scala

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Functions Shown

Function to find kth element in a list -

```
def findKth[A](k: Int, l: List[A]): A = k match { case 0 => l.head case k if k > 0 => findKth(k - 1, l.tail) case _ => throw new NoSuchElementException }
```

Function to find average of numbers in a list -

```
def average[T](ts: Iterable[T])(implicit num: Numeric[T]) = { num.toDouble( ts.sum ) / ts.size }
```

Function to reverse elements of list -

```
def reverse[A](ls: List[A]) = ls.reverse
```

Function to rotate elements of list -

```
rotate(3, List('a, 'b, 'c, 'd, 'e, 'f, 'g, 'h, 'i, 'j, 'k))
```