

Paper 13 Introduction to Functional Programming

2000

```
1. fun elems Empty          = []
   | elems (Leaf x)         = [x]
   | elems (Branch(t1,t2)) = elems(t1)@elems(t2);

2. fun elemsi (Empty, l)      = l
   | elemsi (Leaf x, l)      = x::l
   | elemsi (Branch(t1,t2),l) = elemsi(t1,elemsi(t2,l));

3. fun appendq Nil s         = s
   | appendq Cons(h, tf) s = Cons(h, fn () => appendq(tf(), s));

fun elemsq Empty            = Nil
  | elemsq (Leaf x)         = Cons(x,fn () => Nil)
  | elemsq (Branch(t1,t2)) = appendq(elemsq(t1),elemsq(t2));
```