Foundations of Computer Science 2004
Paper 1 Question 6 (ACN)

```
fn x => A

int->int

fun update a n v =
  fn i => if i=n then v else a n; (*easy*)

Cost of update is O(1), but cost of access is
lnear in number of updates done.

I will give here the code to read from the tree-style array,
but update is then trivial and follows from it.

fun access n B(v,l,r) =
  if n = 1 then v
  else if odd n then
     access ((n-1) div 2, r)
  else access(n div 2), l);

Cost is guaranteed O(log n) where n is subscript being used.
```