

# E11

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## Dæmi 1

```
{-
Notkun: listAll i n f
Fyrir:  i og n eru tölur
        i <= n + 1
        f er einundaraðgerð
Eftir:  [f(i), f(i+1), ..., f(n)]
-}
listAll i n f = map f [i..n]

main :: IO ()
main = do
print(listAll 1 0 (\a -> a+5))
print(listAll 6 10 (\a -> a+5))
```

Keyrsla:

```
❯ ghc -o main main.hs
[1 of 1] Compiling Main                ( main.hs, main.o )
Linking main ...
❯ ./main
[]
[11,12,13,14,15]
❯
```

## Dæmi 2

```
{-
Notkun: powerList xl
Fyrir: xl er listi [x1, x2,...,xn]
Eftir: Listi allra undilista xl
-}

powerList xl = if null xl then [] else (powerList (tail xl)) ++ (map(\y ->
(head xl):y) (powerList (tail xl)))

main :: IO ()
main = do
print(powerList [1, 2, 3])
print(powerList [1])
```

### Keyrsla:

```
> ghc -o main main.hs
[1 of 1] Compiling Main                ( main.hs, main.o )
Linking main ...
> ./main
[[],[3],[2],[2,3],[1],[1,3],[1,2],[1,2,3]]
[[],[1]]
>
```