Sheet#3

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① declare

```
fun {multNT L}
   case L
   of nil then 1
   [] H|T then H*{multNT T} end
end
{Browse {multNT [1 2 3]}} --> 6
```

② declare

```
fun {multT L A}
   case L
   of nil then A
   [] H|T then {multT T A*H} end
end
{Browse {multT [1 2 3] 1}} --> 6
```

③ declare

```
fun {len L A}
   case L
   of nil then A
   else {len L.2 A+1} end
end
{Browse {len [1 2 3 4] 0}} --> 4
```

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(4) declare

```
fun {Check L N}
   case L
   of H|T then
      if V == N then true
      else {Check T N} end
   else false
   end
end
{Browse {Check [1 2 3 4 0] 4}} --> true
```

(5) The above code is considered to be ?

(c) - non-tail which is not more efficient than tail

(6) declare

```
fun {DivideNumbers X Y}
   X/Y end
declare
fun {DivideNumbers2 X Y}
   X div Y end
```

(1) {Browse {DivideNumbers 10 3}} --> error

(2) {Browse {DivideNumbers2 10 3}} --> 3

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(7) declare
fun {Loop from To A}
if from > To then A
else
{Loop from+1 To (To|A)} end
end
{Browse {Loop 1 5 nil}} → [5 5 5 5 5]

(8) {Brose {Loop 1 5 nil}} → [5 5 5 5 5]

(9) what is the initial value of accumulator?
it is 0