[3.10] Appending is faster than *augment()* for adding elements to lists; *seq()* is even faster

Frank Westlake says that:

When working with lists it can be much quicker to append rather than to augment new values. The append operation continues at the same rate, regardless of the size of the list, but the augment operation continues to decrease speed as the list grows in size. For example:

```
apnd()
prgm
local i,list
{}→list
for i,1,100
 disp i
 i→list[i]
endfor
disp list
endprgm
```

is much quicker than

```
agmnt()
prgm
local i,list
{}→list
for i,1,100
 disp i
 augment(list,{i})→list
endfor
disp list
endprgm
```

The *apnd()* program executes in about 9.8 seconds, and the *agmnt()* program finishes in about 17.9 seconds.

However, if your list element expression is simple enough to be used in the *seq()* function, this is much faster than either *augment()* or appending. This function:

```
seq(i,i,1,100)→list
```

executes in less than 2 seconds.

(Credit to Frank Westlake)