benchmark results

for elm-rope

List

all

	runs / second		goodness of fit
recursive	364,098		99.13%
not (any (not ...))	356,854		98.83%
not (any isBad) with let isBad = not ...	351,132		98.87%
not (any (not << ...))	40,450		98.12%

Rope

foldl

	runs / second	goodness of fit
nested	13,859	98.8%
custom	13,316	98.44%
custom with module-level helper	7,975	98.8%

foldr

	runs / second	goodness of fit
custom with module-level helper	11,039	99.13%
nested	10,362	98.9%
custom	10,163	98.43%

toList

	runs / second	goodness of fit
with foldr preserving last list	9,788	99.02%
with foldr	9,435	98.9%
with foldl |> reverse	9,411	98.8%

all
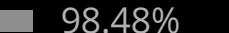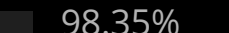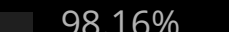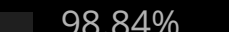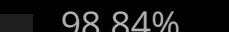
	runs / second	goodness of fit
nested	4,271,458	99%
not (any (not ...))	3,417,775	98.98%

sum (also applies to product)

	runs / second	goodness of fit
nested	35,452	98.74%
with foldl	12,018	98.98%
with foldr	9,597	98.97%

minimum (also applies to maximum)

	runs / second	goodness of fit
with nested fold	12,387	98.53%
with filterMap	7,348	98.83%
with foldr	6,518	98.96%
with foldl	6,321	98.63%

reverse

	runs / second	goodness of fit
keep nested	20,227	99.02%
foldl to flat	11,538	98.84%
foldr to end to flat	4,789	99.2%

filter

	runs / second	goodness of fit
keep nested	13,133	98.54%
foldr to flat	10,528	98.97%
foldl |> reverse to flat	9,161	98.33%

foldl to end to flat 6,237 98.84%

filterMap

	runs / second		goodness of fit
foldr to flat	8,774		98.47%
foldl |> reverse to flat	8,100		97.89%
foldl to end to flat	6,184		98.14%
keep nested	3,832		99.32%

map

	runs / second		goodness of fit
keep nested	11,252		99.55%
foldl |> reverse to flat	8,909		98.07%
foldr to flat	8,881		98.98%

indexedMap

	runs / second		goodness of fit
with foldl |> reverse	6,363		98.52%
with foldl to end	4,541		98.29%

concat

	runs / second		goodness of fit
nested	303,195		99.25%
with append	59,190		98.44%
with :: fold to Node	45,031		99.11%

concatMap

	runs / second		goodness of fit
nested	7,723		98.98%
with :: fold to Node	6,402		99.45%
with append	4,047		99.21%

length

	runs / second		goodness of fit
nested	28,320		98.48%
with foldl	14,042		98.35%
with foldr	11,872		98.16%

isEmpty

	runs / second		goodness of fit
nested	76,195		98.79%
with foldl	61,087		98.84%
with foldr	25,680		98.84%