# Casos de teste

## fibRec

* fibRec 10 = 55 (0.00 secs)
* fibRec 20 = 6765 (0.04 secs)
* fibRec 30 = 832040 (4.42 secs)
* fibRec 35 = 9227465 (47.49 secs)

## fibLista

* fibLista 35 = 9227465 (0.00 secs)
* fibLista 100 = 354224848179261915075 (0.01 secs)
* fibLista 9999 = 2079360823(…)38230626 (0.09 secs)
* fibLista 99999 = 1605285768272981(…)278790626 (1.35 secs)
* fibLista 500000 = 2955561408(…)9780453125 (22.85 secs)

## fibListaInfinita

* fibLista 9999 = 2079360823(…)38230626 (0.06 secs)
* fibListaInfinita 99999 = 1605285768272981(…)278790626 (1.26 secs)
* fibListaInfinita 500000 = 2955561408(…)9780453125 (17.58 secs)
* fibListaInfinita 1000000 = 195328212870775(…)26838242546875 (59.13 secs)

## fibRecBN

* output (fibRecBN (scanner "10")) = "55" (0.00 secs)
* output (fibRecBN (scanner "20")) = "6765" (0.20 secs)
* output (fibRecBN (scanner "30")) = "832040" (23.52 secs)
* output (fibRecBN (scanner "35")) = "9227465" (282.26 secs)

## fibListaBN

* output (fibListaBN (scanner "35")) = "9227465" (0.00 secs)
* output (fibListaBN (scanner "100")) = "354224848179261915075" (0.02 secs)
* output (fibListaBN (scanner "1000")) = "43466557(…)49228875" (6.11 secs)
* output (fibListaBN (scanner "2000")) = "42246963333(…)516817125" (51.72 secs)

## fibListaInfinitaBN

* output (fibListaInfinitaBN (scanner "1000")) = "43466557(…)49228875" (6.08 secs)
* output (fibListaInfinitaBN (scanner "2000")) = "422469633(…)5168171" (50.71 secs)

## scanner (com deriving Show)

* scanner "123" = BN 3 (BN 2 (BN 1 EmptyList))
* scanner "-123" = Negative (BN 3 (BN 2 (BN 1 EmptyList)))
* scanner "" = Emptylist

## output

* output (scanner "123") = "123"
* output (scanner "-123") = "-123"
* output (EmptyList) = ""

## somaBN

* output (somaBN (scanner "123") (scanner "123")) = "246"
* output (somaBN (scanner "123") (scanner "12")) = "135"
* output (somaBN (scanner "123") (scanner "987")) = "1110"
* output (somaBN (scanner "-123") (scanner "-987")) = "-1110"
* output (somaBN (scanner "-123") (scanner "22")) = "-101"
* output (somaBN (scanner "-123") (scanner "222")) = "99"
* output (somaBN (scanner "146") (scanner "-242")) = "-96"
* output (somaBN (scanner "146") (scanner "-24")) = "122"
* output (somaBN (scanner "123") (scanner "-123")) = "0"

## subBN

* output (subBN (scanner "255") (scanner "125")) = "130"
* output (subBN (scanner "100") (scanner "14")) = "86"
* output (subBN (scanner "5") (scanner "70")) = "-65"
* output (subBN (scanner "-100") (scanner "-124")) = "24"
* output (subBN (scanner "-124") (scanner "-76")) = "-48"
* output (subBN (scanner "100") (scanner "-14")) = "114"
* output (subBN (scanner "-100") (scanner "14")) = "-114"

## mulBN

* output (mulBN (scanner "1") (scanner "0")) = "0"
* output (mulBN (scanner "12") (scanner "0")) = "0"
* output (mulBN (scanner "123") (scanner "123")) = "15129"
* output (mulBN (scanner "-123") (scanner "123")) = "-15129"
* output (mulBN (scanner "-999") (scanner "-999")) = "998001"

## divBN

* outputDiv (divBN (scanner "123456") (scanner "12")) = ("10288","0")
* outputDiv (divBN (scanner "123456") (scanner "13")) = ("9496","8")
* outputDiv (divBN (scanner "12") (scanner "16")) = ("0","12")

## safeDivBN (com deriving Show)

* safeDivBN (scanner "17") (scanner "5") = Just (BN 3 EmptyList,BN 2 EmptyList)
* safeDivBN (scanner "17") (scanner "0") = Nothing