lista2

November 22, 2020

Exercício 1.

a)

[54]:
```
x <- 1:20
x
```

1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. 11 12. 12 13. 13 14. 14 15. 15 16. 16 17. 17 18. 18 19. 19 20. 20

b)

[55]:
```
x <- 20:1
x
```

1. 20 2. 19 3. 18 4. 17 5. 16 6. 15 7. 14 8. 13 9. 12 10. 11 11. 10 12. 9 13. 8 14. 7 15. 6 16. 5 17. 4 18. 3 19. 2 20. 1

c)

[56]:
```
x <- c(1:20, 20:1)
x
```

1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. 11 12. 12 13. 13 14. 14 15. 15 16. 16 17. 17 18. 18 19. 19 20. 20 21. 20 22. 19 23. 18 24. 17 25. 16 26. 15 27. 14 28. 13 29. 12 30. 11 31. 10 32. 9 33. 8 34. 7 35. 6 36. 5 37. 4 38. 3 39. 2 40. 1

d)

[57]:
```
a <- seq(3, 36, 3)
a
b <- seq(1,34, 3)
b
c = 0.1^(a)*0.2^(b)

print(c)
```

1. 3 2. 6 3. 9 4. 12 5. 15 6. 18 7. 21 8. 24 9. 27 10. 30 11. 33 12. 36

1. 1 2. 4 3. 7 4. 10 5. 13 6. 16 7. 19 8. 22 9. 25 10. 28 11. 31 12. 34

```
 [1] 2.000000e-04 1.600000e-09 1.280000e-14 1.024000e-19 8.192000e-25
 [6] 6.553600e-30 5.242880e-35 4.194304e-40 3.355443e-45 2.684355e-50
[11] 2.147484e-55 1.717987e-60
```

d) (não seria letra e?)

[58]:
```
f <- c(rep(c(4,6,3),10),4)
f
```

1. 4 2. 6 3. 3 4. 4 5. 6 6. 3 7. 4 8. 6 9. 3 10. 4 11. 6 12. 3 13. 4 14. 6 15. 3 16. 4 17. 6 18. 3 19. 4 20. 6 21. 3 22. 4 23. 6 24. 3 25. 4 26. 6 27. 3 28. 4 29. 6 30. 3 31. 4

d) (não seria letra f?)

[59]:
```
e <- rep(4:6, times=10)
e
```

1. 4 2. 5 3. 6 4. 4 5. 5 6. 6 7. 4 8. 5 9. 6 10. 4 11. 5 12. 6 13. 4 14. 5 15. 6 16. 4 17. 5 18. 6 19. 4 20. 5 21. 6 22. 4 23. 5 24. 6 25. 4 26. 5 27. 6 28. 4 29. 5 30. 6

Exercício 2.

[60]:
```
zercicio_2 <- function(x) {
  result <- exp(x)*cos(x)
  return(result)
}
```

[61]:
```
s <- seq(from = 3, to = 6, by=0.1)
s
```

1. 3 2. 3.1 3. 3.2 4. 3.3 5. 3.4 6. 3.5 7. 3.6 8. 3.7 9. 3.8 10. 3.9 11. 4 12. 4.1 13. 4.2 14. 4.3 15. 4.4 16. 4.5 17. 4.6 18. 4.7 19. 4.8 20. 4.9 21. 5 22. 5.1 23. 5.2 24. 5.3 25. 5.4 26. 5.5 27. 5.6 28. 5.7 29. 5.8 30. 5.9 31. 6

[62]:
```
l <- zercicio_2(s)
l
```

1. -19.884530844147 2. -22.1787533893421 3. -24.4906967328013 4. -26.7731824429934 5. -28.9692377680936 6. -31.0111864393745 7. -32.8197747603385 8. -34.3033601103737 9. -35.3571936185304 10. -35.8628337123077 11. -35.6877324801191 12. -34.6850422516681 13. -32.6936954283217 14. -29.538816297263 15. -25.03252922904 16. -18.975233154959 17. -11.1574173896475 18. -1.36209851820575 19. 10.632038010192 20. 25.046704998273 21. 42.0992010625384 22. 61.9966302766945 23. 84.9290673625027 24. 111.061586042026 25. 140.525075052788 26. 173.405776408577 27. 209.733494247835 28. 249.468440558857 29. 292.486706737123 30. 338.564377858512 31. 387.360340290931

Exercício 3.

a)

[63]:
```
zercicio_3a <- function(i) {
  result <- i^3 + 4*(i^2)
  return(result)
}

s <- 10:100
somatorio <- zercicio_3a(s)
total <- sum(somatorio)
total
```

26852735

b)

[64]:
```
zercicio_3b <- function(i) {
  result <- ((2^i) /i) + ((3^i) / (i^2))
  return(result)
}

s <- 10:25
somatorio <- zercicio_3b(s)
total <- sum(somatorio)
total
```

2129169868.47567

Exercício 4.

[65]:
```
xVec <- sample(0:999, 250, replace=T)
yVec <- sample(0:999, 250, replace=T)
```

a)

[66]:
```
impar <- function (x){
        if(x %% 2 == 0){
           return (FALSE)
        }
        else {
            return (TRUE)
        }
}

novoVect <- vector()

for(i in xVec) {
    if(impar(i)){
        novoVect<-c(novoVect, i)
    }
}
```

```
novoVect
```

1. 921 2. 373 3. 689 4. 67 5. 677 6. 845 7. 91 8. 371 9. 279 10. 879 11. 997 12. 513 13. 737 14. 323 15. 605 16. 617 17. 317 18. 659 19. 555 20. 989 21. 175 22. 257 23. 13 24. 633 25. 397 26. 977 27. 991 28. 951 29. 919 30. 729 31. 919 32. 469 33. 401 34. 177 35. 309 36. 99 37. 501 38. 357 39. 107 40. 645 41. 671 42. 985 43. 301 44. 397 45. 69 46. 909 47. 375 48. 391 49. 71 50. 493 51. 417 52. 611 53. 67 54. 891 55. 845 56. 967 57. 605 58. 537 59. 869 60. 881 61. 45 62. 213 63. 913 64. 195 65. 181 66. 177 67. 849 68. 303 69. 829 70. 207 71. 345 72. 409 73. 921 74. 601 75. 849 76. 395 77. 889 78. 875 79. 655 80. 199 81. 353 82. 639 83. 171 84. 611 85. 563 86. 569 87. 903 88. 9 89. 339 90. 281 91. 791 92. 459 93. 719 94. 981 95. 929 96. 625 97. 249 98. 989 99. 331 100. 91 101. 471 102. 785 103. 959 104. 481 105. 963 106. 295 107. 639 108. 837 109. 245 110. 931 111. 235 112. 243 113. 539 114. 655 115. 143 116. 675 117. 15 118. 39 119. 631 120. 121 121. 71 122. 487 123. 843 124. 963 125. 753 126. 979 127. 987 128. 557

b)

[67]:
```
subVect <- vector()
for (i in 2:250){
    subVect <- c(subVect, yVec[i] - xVec[i-1] )
}

subVect
```

1. -298 2. -88 3. -257 4. 385 5. -534 6. -706 7. -455 8. 711 9. 183 10. 64 11. -96 12. -406 13. -78 14. -826 15. -19 16. -254 17. -578 18. 44 19. 651 20. 433 21. -522 22. -270 23. -225 24. -142 25. -190 26. 388 27. -188 28. -219 29. 331 30. -165 31. -265 32. 291 33. 196 34. 150 35. -305 36. -548 37. -102 38. -353 39. 184 40. 226 41. -124 42. 274 43. -853 44. -166 45. -798 46. 573 47. 132 48. -162 49. 769 50. -462 51. -952 52. -36 53. -641 54. 702 55. -252 56. -170 57. -887 58. 182 59. 482 60. -676 61. 496 62. -151 63. 266 64. -102 65. 241 66. -704 67. 496 68. 392 69. 159 70. -88 71. 379 72. 463 73. 725 74. -139 75. 409 76. -279 77. -291 78. 142 79. -48 80. -42 81. -380 82. -42 83. -370 84. 495 85. 674 86. 377 87. 197 88. 152 89. -354 90. -311 91. -231 92. -569 93. 410 94. -18 95. 413 96. 104 97. 582 98. -339 99. 463 100. 689 101. -182 102. -181 103. 16 104. 107 105. 384 106. 390 107. -117 108. 572 109. -477 110. 328 111. -227 112. -214 113. -489 114. -233 115. 253 116. -494 117. -426 118. 775 119. 387 120. 859 121. 68 122. -857 123. -102 124. 616 125. 617 126. -333 127. -30 128. -85 129. 171 130. 170 131. -641 132. 631 133. -456 134. 230 135. 67 136. 218 137. -380 138. -476 139. 429 140. -496 141. 142 142. -450 143. -472 144. 693 145. 829 146. -472 147. -20 148. 898 149. -214 150. -754 151. -103 152. -818 153. -701 154. -629 155. 69 156. -162 157. 22 158. -621 159. -62 160. 290 161. 285 162. 268 163. -433 164. -214 165. -300 166. -952 167. 42 168. 396 169. -129 170. 330 171. -45 172. 18 173. 497 174. 257 175. 435 176. 358 177. 738 178. -28 179. 77 180. -475 181. -669 182. 103 183. -148 184. 477 185. 418 186. -45 187. -17 188. -182 189. -241 190. -522 191. -367 192. 493 193. 76 194. 183 195. -559 196. -360 197. -771 198. -127 199. 411 200. -448 201. -278 202. -202 203. 261 204. 65 205. 51 206. -29 207. -7 208. -200 209. 110 210. 352 211. 92 212. -121 213. 743 214. -426 215. 1 216. 190 217. 414 218. 424 219. 473 220. 743 221. -230 222. 813 223. -503 224. 473 225. 221 226. 204 227. 439 228. -317 229. -537 230. 16 231. -312 232. 317 233. 348 234. 216 235. -427 236. -491 237. -440 238. -308 239. -607 240. -194 241. -271 242. -36 243. 891 244. 557 245. 295 246. 512 247. -543 248. -329 249. 741

(c)

[68]:
```
cosVect <- vector()
for (i in 2:250){
    item <- (sin(yVec[i]))/(cos(xVec[i-1]))

    cosVect <- c(cosVect, item )
}

print(cosVect, digit=3)
```

```
  [1]  -0.9435  -1.1719   1.8250   0.7331  75.5380  -0.6988   1.2927   0.7839
  [9]   0.9208   0.6509  -0.7550   1.1607   0.1327  -0.6154   1.8676  -0.4363
 [17]  -0.5943  -2.6511  -1.5295  -1.0488   1.8734  -3.5082   1.2862   1.4296
 [25]  -0.4451  -0.9824  -2.4037   0.2661  -0.6252  -0.7307  -0.7932  -0.2509
 [33]   0.0944  -0.9318   2.2756  -0.5166  -0.9124  -0.8196   1.1708  -0.5758
 [41]   1.1620   1.1073   0.9854   0.3505  -0.7216   0.4953  -0.6457   1.5955
 [49]   0.2796 -31.5898  -0.7100   0.6985  -0.1499  -2.7155   3.8670  -1.1495
 [57]  -1.4849 -17.1736  -0.9479  10.5891   6.8582   0.5638   0.7827  -1.0139
 [65]   0.9475 -11.6627   0.8175   0.4996   1.6541   0.0177   1.1649  -0.1777
 [73]  -0.7405  -0.8376   2.2894  -1.6300  -0.2320  -1.6130  -1.9117   5.2064
 [81]  -2.9288  10.9532   9.6701  -1.4125   0.9677  -0.3809  -0.0945  -0.3642
 [89]  -3.9424   8.9772   0.9705   0.2971   1.0147   1.2045  -1.2659  -0.2122
 [97]  -0.7702   2.0787  -1.7669  -2.2988  -0.3401   1.2951  -7.7120  -0.1011
[105]  -1.6385  -0.3453   0.8593  -0.8404  22.2815   1.4390  -2.5703  -0.4458
[113]   0.5613  -3.9889   1.0167   2.6652   2.3546   4.6517  -1.9027  -0.8406
[121]  -1.2177   1.4523  -0.9720  -2.3426   1.5293  -1.9427   1.1376  -0.0454
[129]   2.2789   0.4215  -0.7464   0.3163   0.8088  -0.8914  -0.6694  -0.7259
[137]  -0.8002   0.9614   1.0943   0.8884  -0.8078   0.4777   0.3353   1.2634
[145]  10.6484   0.0124  -0.4051   0.5803  -1.4041  -0.0886   0.1626  -1.2719
[153]  14.1040  34.5573   1.7426   1.4297  -3.0870   2.1866   3.7969   3.8939
[161] -15.1424  -0.8168   1.3167   4.4758   0.9828  -0.7100  -0.5288   0.5436
[169]  -4.4577  -0.8660  -1.3785  -0.4015   0.2219  -0.8196   1.6271  -4.6351
[177]   2.0705   0.5097   0.9890   0.9488  -1.2233  -1.9381   1.5524  -3.0137
[185]  -0.5618  -0.9448   0.9443  -1.8758  -1.4412  -0.1680   0.0429  -1.8508
[193]  -3.5175   0.6335  -2.2776  -0.8898   1.0747  -0.7265   0.2232   2.1578
[201]  -1.0094  -1.4670  -3.2295   2.0003   6.8530  -2.4685  -0.6904   1.8040
[209] 224.1583  -0.5648  -2.0023  -1.0843   1.0233  -0.4517  25.3207   1.0760
[217]   0.3583   0.0177   1.0953   1.2315   0.5531   0.8506  -0.7842   1.8406
[225]   0.4889   0.9004   1.7249   0.8293   0.2737  19.3680   1.0538   3.2357
[233]   0.6169   1.0285  -0.3374  -2.1938  -1.3157   1.6191   8.2762   1.6732
[241]  -1.7520   0.8803  -0.5302  18.2561  -1.5796  -1.4142   1.6412  -1.1503
[249]  -0.0751
```

(d)

[69]:
```
dVect <- vector()
for (i in 3:250){
    item <- (xVec[i-2] + 2*xVec[i-1] + xVec[i])
    dVect <- c(dVect, item )
```

```
}

dVect
```

1. 2356 2. 1818 3. 1500 4. 2266 5. 3123 6. 2448 7. 1309 8. 1112 9. 1525 10. 2149 11. 2831 12. 3360 13. 3724 14. 3584 15. 3029 16. 2602 17. 1776 18. 578 19. 956 20. 2096 21. 1966 22. 2120 23. 2938 24. 2887 25. 2531 26. 2357 27. 1800 28. 1621 29. 2083 30. 2322 31. 2386 32. 2138 33. 1992 34. 2559 35. 3200 36. 3226 37. 2699 38. 2342 39. 2206 40. 2296 41. 2805 42. 2668 43. 2335 44. 2391 45. 1596 46. 1661 47. 2214 48. 1631 49. 2263 50. 2998 51. 2755 52. 2497 53. 2260 54. 2498 55. 2682 56. 2770 57. 2393 58. 2309 59. 2320 60. 1221 61. 1225 62. 2646 63. 2717 64. 2021 65. 2379 66. 2319 67. 1794 68. 1396 69. 721 70. 334 71. 413 72. 670 73. 938 74. 1690 75. 2933 76. 3534 77. 3062 78. 2374 79. 2582 80. 2541 81. 1627 82. 1458 83. 1322 84. 1067 85. 1744 86. 2457 87. 2623 88. 2928 89. 3366 90. 3391 91. 2833 92. 1564 93. 850 94. 939 95. 711 96. 1330 97. 2369 98. 1833 99. 1577 100. 2442 101. 2365 102. 2058 103. 1894 104. 1228 105. 1304 106. 1773 107. 1938 108. 1706 109. 1636 110. 2694 111. 3548 112. 3384 113. 2714 114. 2548 115. 3156 116. 2639 117. 942 118. 176 119. 414 120. 1417 121. 2234 122. 1484 123. 734 124. 1357 125. 2670 126. 3070 127. 2252 128. 1354 129. 1421 130. 1994 131. 2255 132. 2136 133. 1288 134. 885 135. 1306 136. 1665 137. 1425 138. 1447 139. 2514 140. 2923 141. 2625 142. 1946 143. 871 144. 1203 145. 2646 146. 2501 147. 1293 148. 1727 149. 3055 150. 3645 151. 3741 152. 3397 153. 2384 154. 1406 155. 1544 156. 2493 157. 2534 158. 1818 159. 2010 160. 2524 161. 2437 162. 2180 163. 2197 164. 2702 165. 2747 166. 1985 167. 2257 168. 2539 169. 1403 170. 1008 171. 1181 172. 857 173. 968 174. 1085 175. 805 176. 1287 177. 2197 178. 2428 179. 2878 180. 3009 181. 2566 182. 2656 183. 2105 184. 1567 185. 1640 186. 1667 187. 1871 188. 2068 189. 2910 190. 3145 191. 2501 192. 2122 193. 1612 194. 1722 195. 2307 196. 3000 197. 3184 198. 2884 199. 2702 200. 2303 201. 2434 202. 2784 203. 2209 204. 1709 205. 1977 206. 2258 207. 2473 208. 1898 209. 1079 210. 1209 211. 1441 212. 1471 213. 1955 214. 2585 215. 2263 216. 1250 217. 698 218. 541 219. 1272 220. 1965 221. 1595 222. 1540 223. 1058 224. 804 225. 1234 226. 1352 227. 2038 228. 2067 229. 1347 230. 1140 231. 1103 232. 1387 233. 1937 234. 2542 235. 2808 236. 2923 237. 3355 238. 3681 239. 3540 240. 2780 241. 1481 242. 802 243. 1398 244. 1804 245. 2133 246. 3257 247. 3101 248. 1840

(e)

[70]:
```
eVect <- vector()
for (i in 1:249){
    item <- exp((-xVec[i]) + 1) / (xVec[i] + 10)
    eVect<- c(eVect, item)
}

sum(dVect)
```

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Exercício 5.

(a)

[76]:
```
yIndexes <- vector()
y <- vector()
for (i in yVec){
    if(i> 600){
```

```
        y <- c(y,i)
        yIndexes <- c(yIndexes, match(i, yVec))
    }
}

print("os índices são esses")
print(yIndexes, max.levels=1)
```

```
[1] "os índices são esses"
 [1]   2   9  14  16  20  25  27  30  33  34  38  40  41  43  47  49  50  55  56
[20]  59  60  64  65  68  69  74  76  78  79  85  86  87  88  89  91  94  49  98
[39] 100 101 102  89 107 109 112 113 116 119 121 125 126 128 133   9 145 146  50
[58] 149 152 158 161 162 163  68 170 176 178 179  86 185  30 192 193 194 199 200
[77] 204 205 207 209  68 216 194 219 221 222 128 225 126 234  76 244 109 246 193
[96] 249 250
```

(b)

[77]:
```
print("os valores em si são esses")
print(y, max.levels=1)
```

```
[1] "os valores em si são esses"
 [1] 623 802 801 978 655 696 901 654 908 798 882 843 722 964 748 810 782 848 739
[20] 680 928 995 856 965 854 902 718 641 966 852 781 873 842 823 674 711 810 758
[39] 838 863 672 823 760 989 664 631 790 783 937 797 794 819 983 802 755 975 782
[58] 946 779 661 904 896 956 965 774 716 894 763 781 947 654 622 824 926 832 892
[77] 900 821 808 731 965 656 926 666 886 678 819 657 794 835 718 895 989 825 824
[96] 658 889
```

(c)

[102]:
```
v <- vector()
for (i in xVec){
    if(i> 600){
        index <- match(i, yVec)
        if(!is.na(index))
            v <- c(v,yVec[index])
        }
}

v
```

1. 678 2. 666 3. 838 4. 989 5. 824 6. 928 7. 760 8. 886 9. 854 10. 716 11. 722 12. 802 13. 889 14. 882 15. 655 16. 989 17. 655 18. 908 19. 631 20. 843

(d)

[115]:
```
x <- vector()
```

```
for (i in 1:length(xVec)){
    item <- abs( xVec[i] - mean(xVec))^(1/2)
    x <- c(x,item)
}
print(x, max.levels=1)
```

```
  [1] 20.093183 12.010995 13.104808 21.219425 12.638671 18.103480 15.451084
  [8] 20.646162 12.093965 15.435803  8.873331 12.678170 19.019359 20.167697
 [15] 21.902877 12.195737 13.517988  4.328510 22.655330 21.983266 19.150352
 [22] 14.942021  4.823277 17.909104 15.834646  2.064946 14.823495 12.135238
 [29] 13.937862  9.366750  5.721538  9.986791  9.205216 14.151466 15.451084
 [36] 14.585472 21.604074  3.276584 11.905293  4.611290  6.142963 13.142907
 [43] 18.781267 16.711194 21.719484 18.500378 16.132700 21.324540 22.455823
 [50] 10.758067 21.604074 10.966494 21.441455 19.268212 21.765477 12.135238
 [57] 20.826329  4.389077  8.441801 20.043353 21.937730 16.948864 14.551151
 [64] 20.993713 21.101280 20.043353  6.947230  7.433976 10.782579 19.628143
 [71] 21.477058 20.670365 18.446246 17.066458 14.431355 18.131078 20.365068
 [78] 17.513880  5.938350  8.290718 20.266623 20.451504  4.032865 12.659542
 [85] 20.254975  4.611290 11.302035 12.399032 10.896605 21.627205 15.579987
 [92] 19.202500 14.705917 21.006285 10.966494 21.172246 18.473332 19.792322
 [99] 11.927447 18.527385 18.350368  6.537278 11.236726 14.097376 21.124962
[106] 12.135238  4.925850 10.013191  9.681735 21.219425 19.332253 18.103480
[113] 21.206980  9.366750  4.442522 18.754626 19.071864 22.566878 21.731636
[120] 20.958626 17.443165 19.893114 17.951713 18.337503 18.446246 17.456689
[127] 18.213621  5.721538 14.637759 17.867960 14.308599 12.855505 17.656047
[134] 19.780394 17.614312 13.124938 10.404999  3.906917 22.478078 20.093183
[141] 11.947217 12.834952  9.150738 21.336916 19.268212 18.213621 16.874122
[148] 21.662502 11.057305 19.280456 19.098063 21.788437 18.913910 11.736098
[155] 17.839955 12.816552 11.033404 18.567068 18.608170  9.835446  9.681735
[162] 13.066599  8.201463  8.644999  6.762840 21.604074 17.356958  7.192774
[169] 19.640163 18.795319 18.581281  4.154997 22.544711 13.351554 15.370882
[176] 18.255520 19.006946 16.544969  7.633086 14.203380 21.534530 13.757325
[183] 20.291279  6.874882 16.770927 10.379595 19.059486 14.721956 16.378767
[190] 17.853179 21.719484 13.647857 18.241053 20.646162  7.920606  6.801764
[197] 16.362640 21.017517  6.021960 21.112461 14.908521 15.255687 11.033404
[204] 15.451084 21.430446 17.881163 16.500424 20.340501 12.298943 16.800714
[211] 16.560918  5.409621 17.183248  4.662188 11.736098 14.789726 19.525983
[218] 16.591082 20.958626 19.345904 19.767043 22.611148 12.559299 18.255520
[225] 22.411247  8.528540 21.869248 12.912629 10.664708 19.906381  6.577538
[232] 21.124962  5.501273 13.238731 15.771366 12.277459 13.738122 18.048158
[239] 21.112461 19.867964 15.353697 12.460498 22.655330  9.233851  3.568753
[246] 14.327037 21.488043 21.673394 19.216243  6.303650
```

(e)

[124]:
```
y <- vector()
yMax <- max(yVec)
```

```
for(i in yVec){
    if(abs(yMax - i) <= 200 )
    y <- c(y,i)
}
length(y)
```

57

(f)

[125]:
```
x <- vector()
for(i in xVec){
    if(i %% 2 ==0){
        x <- c(x,i)
    }
}

length(x)
```

122

(g)

[126]:
```
sort(xVec)
```

1. 4 2. 4 3. 6 4. 8 5. 9 6. 12 7. 13 8. 15 9. 34 10. 36 11. 39 12. 45 13. 48 14. 56 15. 58 16. 62 17. 67 18. 67 19. 69 20. 71 21. 71 22. 72 23. 76 24. 78 25. 78 26. 90 27. 91 28. 91 29. 99 30. 107 31. 121 32. 126 33. 132 34. 136 35. 143 36. 146 37. 146 38. 148 39. 154 40. 156 41. 164 42. 171 43. 172 44. 174 45. 175 46. 176 47. 177 48. 177 49. 181 50. 184 51. 184 52. 195 53. 198 54. 199 55. 207 56. 213 57. 216 58. 222 59. 226 60. 230 61. 235 62. 236 63. 238 64. 242 65. 243 66. 245 67. 249 68. 257 69. 279 70. 281 71. 294 72. 295 73. 301 74. 303 75. 309 76. 312 77. 317 78. 323 79. 328 80. 331 81. 339 82. 342 83. 345 84. 352 85. 353 86. 357 87. 362 88. 366 89. 370 90. 370 91. 370 92. 371 93. 373 94. 375 95. 391 96. 395 97. 397 98. 397 99. 401 100. 409 101. 417 102. 432 103. 446 104. 450 105. 459 106. 462 107. 469 108. 470 109. 471 110. 474 111. 481 112. 482 113. 487 114. 488 115. 493 116. 494 117. 496 118. 496 119. 498 120. 500 121. 501 122. 502 123. 513 124. 528 125. 530 126. 536 127. 537 128. 539 129. 550 130. 550 131. 555 132. 557 133. 560 134. 563 135. 569 136. 580 137. 586 138. 590 139. 592 140. 596 141. 601 142. 602 143. 605 144. 605 145. 611 146. 611 147. 614 148. 617 149. 625 150. 631 151. 633 152. 636 153. 639 154. 639 155. 645 156. 655 157. 655 158. 659 159. 660 160. 666 161. 668 162. 671 163. 675 164. 677 165. 678 166. 682 167. 684 168. 688 169. 689 170. 690 171. 700 172. 706 173. 716 174. 719 175. 722 176. 729 177. 730 178. 734 179. 736 180. 737 181. 750 182. 753 183. 756 184. 756 185. 756 186. 760 187. 766 188. 768 189. 785 190. 791 191. 802 192. 822 193. 824 194. 829 195. 836 196. 837 197. 838 198. 843 199. 845 200. 845 201. 846 202. 849 203. 849 204. 850 205. 854 206. 862 207. 869 208. 870 209. 875 210. 879 211. 881 212. 882 213. 884 214. 886 215. 889 216. 891 217. 903 218. 908 219. 909 220. 912 221. 913 222. 919 223. 919 224. 921 225. 921 226. 924 227. 928 228. 929 229. 931 230. 932 231. 951 232. 958 233. 959 234. 963 235. 963 236. 967 237. 972 238. 977 239. 979 240. 981 241. 984 242. 984 243. 984 244. 985 245. 987 246. 989 247. 989 248. 991 249. 992 250. 997

(h)

[134]:
```
y <- vector()
sequencia <- seq(1, 250, 2)
y <- yVec[sequencia]
y
```

1. 127 2. 285 3. 452 4. 139 5. 802 6. 343 7. 272 8. 98 9. 412 10. 580 11. 467 12. 24 13. 696 14. 901 15. 151 16. 440 17. 908 18. 467 19. 182 20. 175 21. 722 22. 964 23. 72 24. 748 25. 810 26. 171 27. 361 28. 848 29. 200 30. 680 31. 243 32. 79 33. 856 34. 215 35. 854 36. 44 37. 553 38. 87 39. 567 40. 966 41. 544 42. 57 43. 852 44. 873 45. 823 46. 674 47. 317 48. 58 49. 173 50. 570 51. 863 52. 379 53. 823 54. 760 55. 989 56. 395 57. 631 58. 372 59. 375 60. 783 61. 937 62. 56 63. 797 64. 489 65. 465 66. 368 67. 983 68. 356 69. 563 70. 26 71. 425 72. 232 73. 755 74. 377 75. 946 76. 135 77. 174 78. 26 79. 191 80. 241 81. 904 82. 956 83. 378 84. 32 85. 965 86. 494 87. 518 88. 596 89. 542 90. 763 91. 244 92. 431 93. 947 94. 580 95. 552 96. 314 97. 824 98. 274 99. 111 100. 832 101. 515 102. 548 103. 821 104. 808 105. 731 106. 587 107. 367 108. 113 109. 926 110. 666 111. 886 112. 819 113. 657 114. 794 115. 367 116. 137 117. 388 118. 558 119. 177 120. 535 121. 718 122. 326 123. 989 124. 824 125. 658

Exercício 6.

[156]:
```
par <- seq(2, 38, 2)
impar <- seq(3,39,2)

tudo <- vector()
tudo <- c(tudo,1)
tudo

for(i in 1:length(par)){
    temp <- vector()
    for(i in 1:i){
        item <- par[i]/impar[i]
        temp <- c(temp, item)
    }

    tudo <- c(tudo, prod(temp))
}
sum(tudo)
```

1

6.97634613789762

[ ]:
```

```