c Código fantôma homem- modificado c Cell Cards

1 1 -1.87 -1 imp:p,e=1 $source

1. 3 -1.04 ((-13 20 -5):(-213 20 -5)) #21 imp:p,e=1 $ legs
2. 2 -0.00129 (((313 4 -5 413):-4):(11 5 -6):(21 6 -22): &

(14 22 -12):(24 12 -15)) 1 2 7 -8 9 -10 #64 #15 imp:p,e=1 $outsides of phantom

1. 3 -1.04 ((-23 6 -22 114) #44 #18 #118 ):(-21 22 -322 114):((322 -12 -18 116) &

#41 #43 #17):((-524 12 116) #43 #42) imp:p,e=1 $ head and neck

1. 3 -1.04 (-5 20 -313 13):(213 -413 -5 20):(4 -20 -313):(4 -20 -413): &

(-11 16 5 -19):(-11 19 -6 21): &

(-21 23 6 -22):(22 -322 21 -14):(-14 18 322 -12):(12 -24 524) imp:p,e=1 $skin

1. 4 -0.296 (-27:28:-29:30) -25 31 imp:p,e=1 $right lung
2. 4 -0.296 (33:34:32) -26 31 imp:p,e=1 $ left lung
3. 3 -1.04 -35 36 -37 -38 imp:p,e=1 $liver
4. 3 -1.04 -39 40 #47 imp:p,e=1 $stomach
5. 3 -1.04 -40 imp:p,e=1 $ contents
6. 3 -1.04 -41 42 imp:p,e=1 $ urinary bladder
7. 3 -1.04 -42 imp:p,e=1 $ contents
8. 3 -1.04 (-43):(-44) imp:p,e=1 $ testes
9. 3 -1.04 -45 imp:p,e=1 $brain
10. 3 -1.04 (-48 175 37 -19):(-176 177 -178) imp:p,e=1 $esophagus:thoracic+abdominal portion

118 0 -175 37 -19 imp:p,e=1 $ void in esophagus

1. 3 -1.04 (-49 50 51 -52):(-53 54 -55 56):(-57 58 59 -52):(-61 62 -59 65): &

(-63 64 -65 5) imp:p,e=1 $colon:ascending, transverse, descending and sigmoid

1. 3 -1.04 (-50 51 -52):(-54 -55 56):(-58 59 -52):(-62 -59 65): &

(-64 -65 5) imp:p,e=1 $contents-colon

1. 5 -1.4 (-66 20 -5):(20 -5 -67) imp:p,e=1 $ leg bones
2. 5 -1.4 (-68 5 -70 -16):(-69 5 -70 -16) imp:p,e=1 $ arm bones
3. 5 -1.4 (-71 272 -72 -119):(-71 -73 -273 -119) imp:p,e=1 $clavicles
4. 5 -1.4 (75 -74 78 -79 119 80 -81):(75 -74 78 -79 119 -76 77) imp:p,e=1 $scapulae
5. 5 -1.4 ((-83 82 -86 87 5 -85):(82 -83 87 85 -84)) imp:p,e=1 $pelvis
6. 5 -1.4 ((-75 89 90 -91):(-75 89 92 -93):(-75 89 94 -95):(-75 89 31 -96): &

(-75 89 97 -98):(-75 89 99 -100):(-75 89 101 -102):(-75 89 103 -104): &

(-75 89 105 -106):(-75 89 107 -108):(-75 89 109 -110):(-75 89 111 -79)) &

#10 #24 #25 #26 imp:p,e=1 imp:p,e=1 $rib cage

41 5 -1.4 (-112 84 -90):(-112 90 -19):(19 -113 -114) imp:p,e=1 $spine c 41 5 -1.4 -112 84 -90 imp:p,e=1 $spine, lower portion

c 411 5 -1.4 -112 90 -19 imp:p,e=1 $ spine, middle portion c 412 5 -1.4 19 -113 -114 imp:p,e=1 $ spine, upper portion

1. 5 -1.4 -116 45 -12 #18 imp:p,e=1 $skull-cranium
2. 5 -1.4 (-116 45 12 #18):(118 -117 120 -121 -119 116) imp:p,e=1 $facial skeleton
3. 3 -1.04 (((-125 134 -122 6 -133 123 127):(-126 128 -122 123 -134 6 -133)): &

((-129 131 134 -122 123 133 -47):(-130 132 -134 -122 123 133 -47))) ( &

-122 123 -23 -124 6 -47) imp:p,e=1 $thyroid

1. 3 -1.04 (-135 65):(-136 -137) imp:p,e=1 $ kidneys
2. 3 -1.04 (-138 139 -65):(-138 65 140) imp:p,e=1 $pancreas
3. 3 -1.04 -141 imp:p,e=1 $spleen
4. 3 -1.04 -142 imp:p,e=1 $thymus
5. 3 -1.04 (-143 145):(-144 145) imp:p,e=1 $ adrenals
6. 3 -1.04 (-146 147 -148):(-149 150 148 -348) imp:p,e=1 $gall bladder
7. 3 -1.04 (-147 -148):(-150 148 -145) imp:p,e=1 $gall bladder-contents
8. 3 -1.04 -151 152 153 #56 #57 imp:p,e=1 $heart -left ventricle
9. 3 -1.04 -152 153 #56 #57 imp:p,e=1 $ heart-left ventricle-contents
10. 3 -1.04 -154 155 153 -156 151 imp:p,e=1 $right ventricle
11. 3 -1.04 -155 153 -156 151 imp:p,e=1 $right ventricle-contents
12. 3 -1.04 (-157 158 -153 156):(-159 160 -153 -156) imp:p,e=1 $left atrium-part 1 and 2
13. 3 -1.04 (-158 -153 156):(-160 -153 -156) imp:p,e=1 $contents of the left atrium
14. 3 -1.04 -161 162 -153 -156 159 imp:p,e=1 $right atrium
15. 3 -1.04 -162 -153 -156 159 imp:p,e=1 $contents-right atrium
16. 3 -1.04 ((-82 164 -165 52 -36):(-82 49 164 -165 166 -52)) #19 #20 imp:p,e=1 $small intestine
17. 3 -1.04 ((-16 5 -19):(19 -6 -21 114)) #8 #9 #10 #11 #12 #13 #14 &

#18 #19 #20 #24 #25 #26 #28 #29 &

#41 #45 #47 #48 #49 #50 #52 #53 #54 #55 &

#56 #57 #58 #59 #60 #61 #62 #118 imp:p,e=1 $trunk

1. 3 -1.04 ((171 -5)(172 -170)(-119 169)(313 413)) 43 44 imp:p,e=1 $ male genitalia
2. 0 -2:-7:8:-9:10:15 imp:p,e=0
3. 3 -1.04 170 -171 -172 #35 #36 #37 #38 imp:p,e=1 $cilindro dentro fígado
4. 6 -11.34 173 -174 -175 176 177 -178 imp:p,e=1 $colimador 1
5. 6 -11.34 179 -180 -175 176 177 -178 imp:p,e=1 $colimador 2

69 6 -11.34 181 -182 -175 176 -183 184 imp:p,e=1 $c3 70 6 -11.34 181 -182 -175 176 185 -186 imp:p,e=1 $c4 c end of cell Cards

c Surface Cards 1 s 0 -100 91.45 1

2 pz -300.0

1. pz -80.0
2. pz 0.0
3. pz 70.0
4. px -1000.0
5. px 1000.0
6. py -1000.0
7. py 1000.0
8. sq 100 400 0 0 0 0 -40000 0 0 0 $trunk-skin 12 pz 91.45

13 gq 1 1 0 0 0 -0.2 -20 0 0.04 3.96 $ left leg

213 gq 1 1 0 0 0 0.2 20 0 0.04 3.96 $ right leg

313 gq 1 1 0 0 0 -0.2 -20 0 0 0 $ left leg skin

413 gq 1 1 0 0 0 0.2 20 0 0 0 $ right leg skin 14 sq 100 64 0 0 0 0 -6400 0 0 0 $head1-skin

1. pz 200.0
2. sq 96.04 392.04 0 0 0 0 -37651.521 0 0 0 $trunk
3. sq 96.04 60.84 0 0 0 0 -5843.0736 0 0 0 $head1
4. pz 69.80
5. pz -79.8
6. cz 5.4
7. pz 78.40

322 pz 78.6

1. cz 5.20 $neck
2. sq 5112.25 3271.84 6400 0 0 0 -327184 0 0 91.45 $head2

524 sq 4638.172 2938.72 5843.074 0 0 0 -282235.1 0 0 91.45 $head2

1. sq 32400 14400 1406.25 0 0 0 -810000 -8.50 0 43.50 $right lung
2. sq 32400 14400 1406.25 0 0 0 -810000 8.50 0 43.5 $ left lung
3. pz 46
4. pz 54
5. px -5.4
6. py 1.5 $ end the section removed from the right lung
7. pz 43.5
8. pz 55
9. px 8.0
10. py 1.0 $end the section removed from the left lung
11. sq 64 272.25 0 0 0 0 -17424 0 0 0 $liver
12. pz 27
13. pz 43
14. p 0.028571 0.022222 -0.023256 -1 $end def the liver
15. sq 576 896 144 0 0 0 -9216 8 -4 35 $ stomach-wall
16. sq 310.914543 625.988841 65.363490 0 0 0 -3566.739812 8 -4 35 $ stomach-contents
17. sq 142.988120 293.942933 293.942933 0 0 0 -3514.900218 0 -4.50 8 $urinary bladder-wall 42 sq 105.646247 227.630725 227.630725 0 0 0 -2339.687839 0 -4.50 8 $bladder-contents
18. sq 11.9025 8.9401 3.8025 0 0 0 -20.115225 -1.30 -8 -2.30 $testes-left
19. sq 11.9025 8.9401 3.8025 0 0 0 -20.115225 1.30 -8 -2.30 $testes-right
20. sq 2445.3025 1440.2025 3221.6976 0 0 0 -106517.3769 0 0 91.45 $brain c 37 pz 43.0
21. pz 75.0
22. sq 0.1764 1.3689 0 0 0 0 -0.24147396 0 2.575 0 $esophagus: thoracic+abdominal portion
23. sq 0.0144 0.7569 0 0 0 0 -0.01089936 0 2.575 0
24. 5 cx 0.70
25. 5 px 0.10
26. 5 px 7.80
27. sq 6.25 6.25 0 0 0 0 -39.0625 -8.50 -2.36 0 $ULI- upper large intestine 1.ascending colon-wall
28. sq 3.20947225 3.20947225 0 0 0 0 -10.300712135 -8.5 -2.36 0 $ascending colon-contents 51 pz 14.45
29. pz 24.0 $end ac. col.
30. sq 0 2.25 6.25 0 0 0 -14.0625 0 -2.36 25.50 $ ULI 2.transverse colon-wall
31. sq 0 0.946729 3.892729 0 0 0 -3.68539433441 0 -2.36 25.50 $ transverse colon-contents
32. px 10.50
33. px -10.50
34. gq 0.282933 0.220415 0.00663757 0 0.0721253 -0.0288859 -4.541008 -0.628932 &

0.128904 17.669146 $LLI-lower large intestine 1. descending colon-wall 58 gq 0.556917 0.395554 0.0120398 0 0.129435 -0.056858 -8.938371 -1.128675 &

0.271613 35.669768 $descending colon-contents 59 pz 8.72 c 52 pz 24.0

1. ty 3.0 0 8.72 5.72 1.57 1.57 $LLI 2. sigmoid colon -upper
2. ty 3.0 0 8.72 5.72 0.91 0.91
3. ty 3.0 0 0 3.0 1.57 1.57 $sigmoid colon -lower
4. ty 3.0 0 0 3.0 0.91 0.91 $sigmoid colon -lower
5. px 3.0
6. gq 1 1 0.00906872 0 0 -0.200501 -20 0 1.78571 87.75 $left leg bone
7. gq 1 1 0.00906872 0 0 0.200501 20 0 1.78571 87.75 $right leg bone
8. gq 0.510204 0.137174 0 0 0 0.010352 -19.4898 0 -0.204969 185.878 $left arm bone
9. gq 0.510204 0.137174 0 0 0 0.010352 18.0612 0 0.175983 159.592 $right arm bone
10. pz 69
11. tz 0 11.1 68.25 20 0.7883 0.7883 $clavicles
12. p 0.89415 1 0 11.1
13. p -0.89415 1 0 11.1
14. p 7.0342 1 0 11.1
15. p 7.0342 -1 0 -11.1
16. sq 94.09 289 0 0 0 0 -27192.01 0 0 0 $scapulae c 75 sq 96.04 361 0 0 0 0 -34670.44 0 0 0 74 sq 95.8441 289 0 0 0 0 -27698.94 0 0 0
17. p 0.25 -1 0 0 $left
18. p 0.80 -1 0 0
19. pz 50.9
20. pz 67.3
21. p 0.25 1 0 0 $right
22. p 0.80 1 0 0
23. sq 127.69 127.69 0 0 0 0 -16304.7361 0 -3.8 0 $pelvis
24. sq 144 144 0 0 0 0 -20736 0 -3 0
25. pz 22
26. pz 14 86 py 5 87 py -3

c 75 88 sq 96.04 289 0 0 0 0 -27755.56 0 0 0 $rib cage

1. sq 86.49 272.25 0 0 0 0 -23546.9025 0 0 0
2. pz 35.1
3. pz 36.5
4. pz 37.9
5. pz 39.3
6. pz 40.7 95 pz 42.1 c 31 pz 43.5 96 pz 44.9
7. pz 46.3
8. pz 47.7
9. pz 49.1
10. pz 50.5
11. pz 51.9
12. pz 53.3
13. pz 54.7
14. pz 56.1
15. pz 57.5
16. pz 58.9
17. pz 60.3
18. pz 61.7
19. pz 63.1
20. pz 64.5
21. pz 65.9

c 79 pz 67.3

1. sq 6.25 4 0 0 0 0 -25 0 5.50 0 $ spine-mid, lower
2. pz 84.8
3. sq 6.25 4 0 0 0 0 -25 0 1.45 0 $ spine-upper

c 45 sq 2445.3025 1440.2025 3221.6976 0 0 0 -106517.3769 0 0 91.45 $skull -crnium 116 sq 3991.080625 2487.515625 5076.5625 0 0 0 -224498.28515625 0 0 91.45 $skull-cranium

117 sq 81 49 0 0 0 0 -3969 0 0 0 $ facial skeleton 118 sq 57.76 31.36 0 0 0 0 -1811.3536 0 0 0 $facial skeleton

c 80 sq 5112.25 3271.84 6400 0 0 0 -327184 0 0 91.45 $the statements defining the cranium

1. py 0.0
2. pz 82.4
3. pz 93.13
4. c/z 0 -4.0 2.2 $thyroid
5. c/z 0 -4.0 1.0
6. py -4
7. gq 1 1 -0.531464 -2 0 0 -8 8 78.9413 -2915.4 $thyroid (inside R)
8. gq 1 1 -0.531464 2 0 0 8 8 78.9413 -2915.4 $thyroid (inside R)
9. gq 1 1 -0.109807 -2 0 0 -8 8 16.3102 -589.661 $thyroi (outside r)
10. gq 1 1 -0.109807 2 0 0 8 8 16.3102 -589.661 $thyroid (outside r)
11. gq 1 1 -0.0590516 -2 0 0 -8 8 7.34563 -212.437 $thyroid (inside R)
12. gq 1 1 -0.0590516 2 0 0 -8 8 7.34563 212.437 $thyroid (inside R)
13. gq 1 1 -0.0122007 -2 0 0 -8 8 1.51769 -31.1977 $thyroid (outside r)
14. gq 1 1 -0.0122007 2 0 0 8 8 1.51769 -31.1977 $thyroid (outside r)
15. pz 71.25
16. px 0
17. sq 68.0625 612.5625 45.5625 0 0 0 -1378.265625 6.0 6.0 32.50 $left kidney
18. sq 68.0625 612.5625 45.5625 0 0 0 -1378.265625 -6.0 6.0 32.50 $right kidney c 65 px 3 137 px -3
19. sq 15.6816 2787.84 368.64 0 0 0 -4014.4896 -1.0 0 37 $pancreas
20. px -1
21. pz 37
22. sq 144 441 49 0 0 0 -1764 11 3 37 $spleen
23. sq 10.24 36 1.44 0 0 0 -23.04 0 -7.30 57.00 $thymus
24. 1 sq 6.25 56.25 0.5625 0 0 0 -14.0625 0 0 0 $ left adrenal 144 2 sq 6.25 56.25 0.5625 0 0 0 -14.0625 0 0 0 $ right adrenal
25. 1 pz 0
26. 3 so 2.12 $ gall bladder
27. 3 so 2.0 $ gall bladder
28. 3 pz 0

348 3 pz 8

1. 3 sq 1 1 -0.05175625 0 0 0.4823 -4.4944 0 0 0 $ gall bladder
2. 3 sq 1 1 -0.05175625 0 0 0.455 -4 0 0 0 $ gall bladder
3. 4 sq 240.25 710.7556 1849 0 0 0 -17768.89 0 0 0 $ HEART left ventricle
4. 4 sq 44.3556 172.6596 729.5401 0 0 0 -2363.709924 0 0 0 $left ventricle (wall+contents) 153 4 px 0

154 4 sq 1225 3624.08 1849 0 0 0 -90601 0 0 0 $ right ventricle (wall+contens) 155 4 sq 792.9856 2621.44 1239.04 0 0 0 -50751.0784 0 0 0 $ right ventricle

1. 4 pz 0
2. 4 sq 240.25 280.2276 729 0 0 0 -7005.69 0 0 0 $left atrium (wall+contents)-part 1
3. 4 sq 173.1856 203.9184 574.5609 0 0 0 -4504.557456 0 0 0 $ left atrium (wall+contents)-part 1
4. 4 sq 110.25 128.5956 729 0 0 0 -3214.89 0 0 0 $ left atrium (wall+contents)-part 2
5. 4 sq 71.5716 84.2724 574.5609 0 0 0 -1861.577316 0 0 0 $ left atrium (wall+contents)part 2
6. 4 sq 1225 1428.84 729 0 0 0 -35721 0 0 0 $ right atrium
7. 4 sq 991.6201 1167.5889 574.5609 0 0 0 -25792.038801 0 0 0 $ right atrium (wall+contents) c 82 163 sq 127.69 127.69 0 0 0 0 -16304.7361 0 -3.80 0 $small intestine
8. py -4.86
9. py 2.20 166 pz 17

c 36 pz 27 $end small intestine

1. pz -4.8 $male genitalia
2. p 1 0 0.1 -10 $xz plane

170 p 1 0 -0.1 10

1. p 0 1 0.1 -10 $yz plane
2. pz 34.75 $altura cilindro
3. pz 35.25 $altura cilindro
4. c/z -10 -5 0.798 $cilindro no fígado
5. PX -8 $colimador1(c1)
6. PX -3 $c1
7. PY -67.5 $c1 & c2 & c3 & c4
8. PY -72.5 $c1 & c2 & c3 & c4
9. PZ -3 $c1 & c2
10. PZ 3 $c1 & c2
11. PX 3 $c2
12. PX 8 $c2
13. PX -8 $c3 & c4
14. PX 8 $c3 & c4
15. PZ -3 $c3
16. PZ -8 $c3
17. PZ 3 $c4
18. PZ 8 $c4

c end surface cards

vol j 20800 j 5250 2890 1810 1560 1830 152 250 45.7 203 37.6 1370 44.7 j &

372.5 360.9 2800 956 54.7 202 606 694 983 618 305 19.9 288 & 90.7 176 20.1 15.7 10.1 53.6 177 102 67.2 108 31.6 115 27.4 & 111 1060 43090 196 j

tr1 3.5 5.0 38 0.616 0.788 0 -0.788 0.616 0 0 0 1 tr2 -3.5 5 38 0.616 -0.788 0 0.788 0.616 0 0 0 1

tr3 -4.5 -3.2 30 0.9615 0 -0.2748 -0.0574 0.9779 -0.2008 0.2687 0.2090 0.9403 tr4 1 -1.8 50 0.6751 -0.4727 -0.5664 -0.4640 0.3249 -0.8241 0.5736 0.8191 0 tr5 0 2.575 42.30 0.736084 -0.604969 -0.303634 0.634945 0.772557 0 0.234575 &

-0.192791 0.952789 c Material Cards m1 55137 1.0 $source m2 7000 0.8 8000 0.2 $air m3 1000 10.454E-02 6000 22.663E-02 7000 2.490E-02 8000 & 63.525E-02 11000 0.112E-02 12000 0.013E-02 14000 0.030E-02 &

15000 0.134E-02 16000 0.204E-02 17000 0.133E-02 19000 &

0.208E-02 20000 0.024E-02 26000 0.005E-02 30000 0.003E-02 & 37000 0.001E-02 40000 0.001E-02 $soft tissue m4 1000 10.134E-02 6000 10.238E-02 7000 2.866E-02 8000 & 75.752E-02 11000 0.184E-02 12000 0.007E-02 14000 0.006E-02 15000 &

0.080E-02 16000 0.225E-02 17000 0.266E-02 19000 &

0.194E-02 20000 0.009E-02 26000 0.037E-02 30000 0.001E-02 & 37000 0.001E-02 $lung

m5 1000 7.337E-02 6000 25.475E-02 7000 3.057E-02 8000 &

47.893E-02 9000 0.025E-02 11000 0.326E-02 12000 0.112E-02 14000 0.002E-02 &

15000 5.095E-02 16000 0.173E-02 17000 0.143E-02 19000 &

0.153E-02 20000 10.190E-02 26000 0.008E-02 30000 0.005E-02 & 37000 0.002E-02 38000 0.003E-02 82000 0.001E-02 $skeleton m6 82207 1 $chumbo

mode p e

c source

SDEF PAR 2 POS 0 -107.5 0 VEC 0 1 0 DIR=d1 ERG=0.1 $E = 1keV

SI1 H -1 0.984 1 $theta=10 graus

SP1 0 0.9924 0.0076 SB1 0 0 1 c tally F4:p 1

F14:e 1 F6:p 1

F16:e 1

\*F8:p 1 \*F18:e 1 nps 5e8 print 110

prdmp 0 1e4