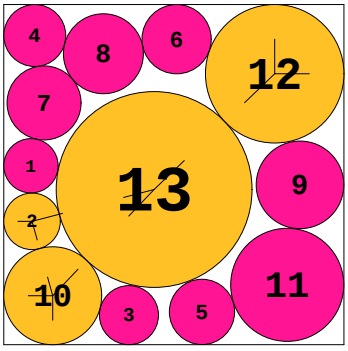
N = 13

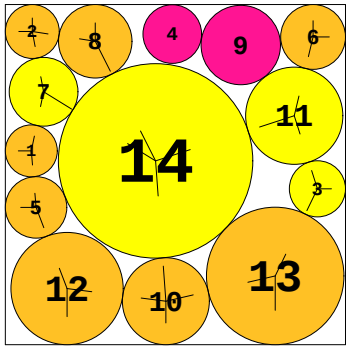
13 circles in a square



radius = 0.28782518541 density = 0.827661674866
ratio = 12.526879015767 contacts = 9

N = 14

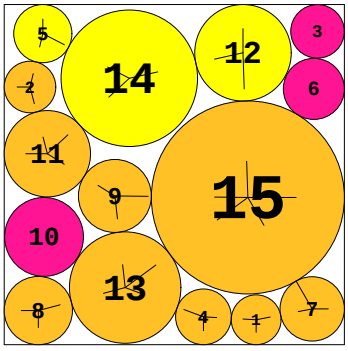
14 circles in a square



radius = 0.285809048868 density = 0.834437676478
ratio = 13.091458795765 contacts = 25

N = 15

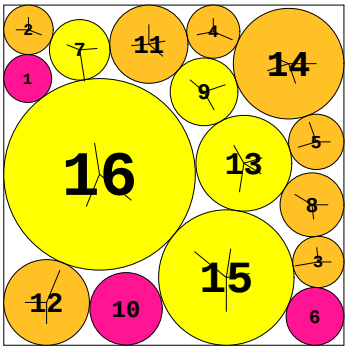
15 circles in a square



radius = 0.283709816856 density = 0.839083059695
ratio = 13.651213726693 contacts = 25

N = 16

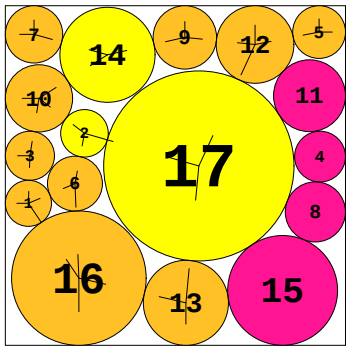
16 circles in a square



radius = 0.281524203540 density = 0.841766635240
ratio = 14.208369830253 contacts = 27

N = 17

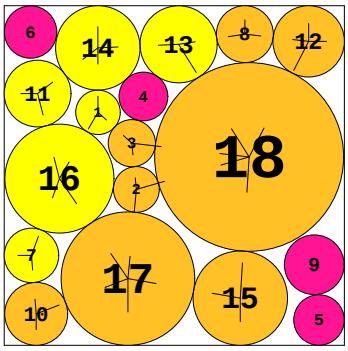
17 circles in a square



radius = 0.279747899942 density = 0.845639942963
ratio = 14.738647283917 contacts = 27

N = 18

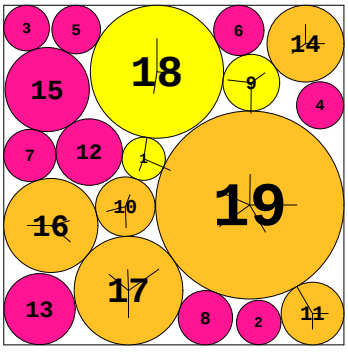
18 circles in a square



radius = 0.277734129429 density = 0.846971867631
ratio = 15.275906838712 contacts = 29

N = 19

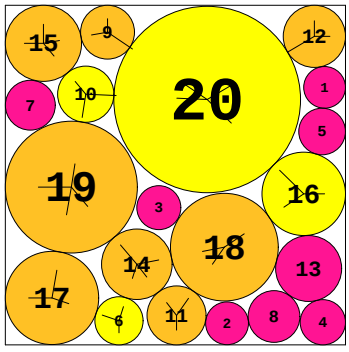
19 circles in a square



radius = 0.276785064192 density = 0.853860488604
ratio = 15.748317042534 contacts = 19

N = 20

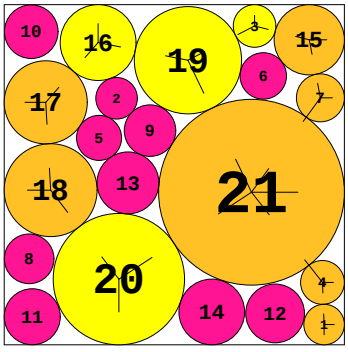
20 circles in a square



radius = 0.274456306322 density = 0.851385078728
ratio = 16.294527952111 contacts = 25

N = 21

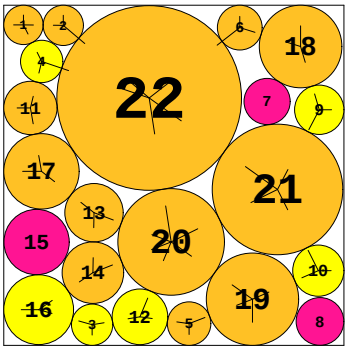
21 circles in a square



radius = 0.273047985612 density = 0.853823484652
ratio = 16.783041576543 contacts = 23

N = 22

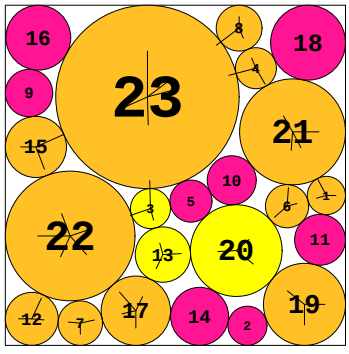
22 circles in a square



radius = 0.271412895744 density = 0.854147552933
ratio = 17.281477164442 contacts = 39

N = 23

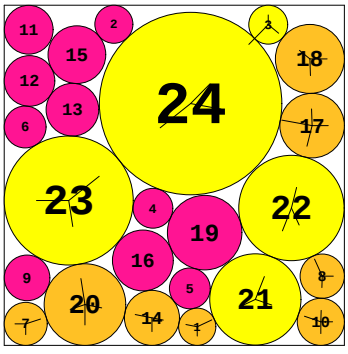
23 circles in a square



radius = 0.269566665039 density = 0.852492293415
ratio = 17.790892365553 contacts = 31

N = 24

24 circles in a square



radius = 0.268206063255 density = 0.853324532174
ratio = 18.265729813628 contacts = 27