N = 49
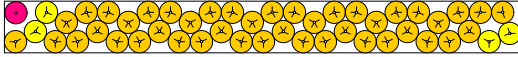
49 circles in a 1x0.10000 rectangle

radius = 0.021559612860   density = 0.715530035867
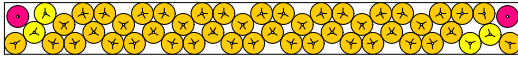ratio = 4.638302211064   contacts = 110

N = 50

50 circles in a 1x0.10000 rectangle

radius = 0.021334674870   density = 0.714976775101
ratio = 4.687205247274   contacts = 110

N = 51

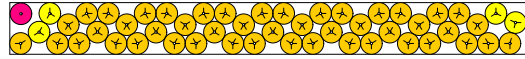**51 circles in a 1x0.10000 rectangle**

radius = 0.021121768288   density = 0.714793503551
ratio = 4.734452089279   contacts = 112

N = 52

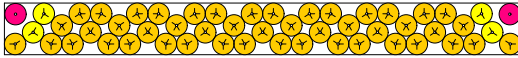**52 circles in a 1x0.10000 rectangle**

radius = 0.020926705879   density = 0.715409918848
ratio = 4.778582954245   contacts = 117

N = 53

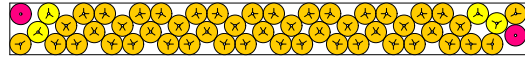**53 circles in a 1x0.10000 rectangle**

radius = 0.020745366554   density = 0.716585420817
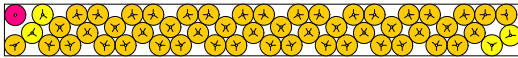ratio = 4.820353486550   contacts = 117

N = 54

54 circles in a 1x0.10000 rectangle

radius = 0.020568322013   density = 0.717697375880
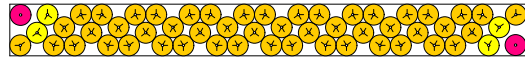ratio = 4.861845314226   contacts = 119

N = 55

55 circles in a 1x0.10000 rectangle

radius = 0.020409946124   density = 0.719774205504
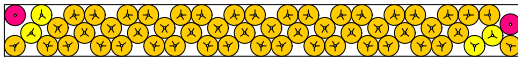ratio = 4.899571973014   contacts = 124

N = 56

56 circles in a 1x0.10000 rectangle

radius = 0.020262091293   density = 0.722281406814
ratio = 4.935324718175   contacts = 124

N = 57

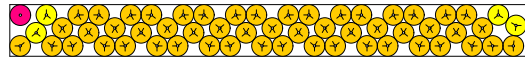**57 circles in a 1x0.10000 rectangle**

radius = 0.020113279994   density = 0.724420158852
ratio = 4.971839502477   contacts = 126

N = 58

58 circles in a 1x0.10000 rectangle

radius = 0.019983322528   density = 0.727634465734
ratio = 5.004172847612   contacts = 131

N = 59

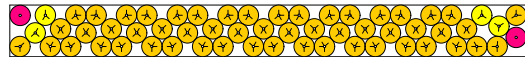**59 circles in a 1x0.10000 rectangle**

radius = 0.019861435124   density = 0.731178034842
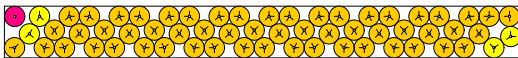ratio = 5.034882896302   contacts = 131

N = 60

60 circles in a 1x0.10000 rectangle

radius = 0.019735625997   density = 0.734180653027
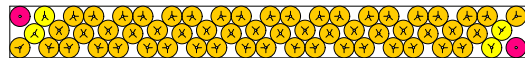ratio = 5.066978874327   contacts = 133

N = 61

61 circles in a 1x0.10000 rectangle

radius = 0.019627834643   density = 0.738285754854
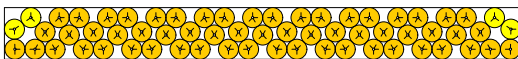ratio = 5.094805505413   contacts = 138

N = 62

62 circles in a 1x0.10000 rectangle

radius = 0.019526211384   density = 0.742638628257
ratio = 5.121321183698   contacts = 138

N = 63

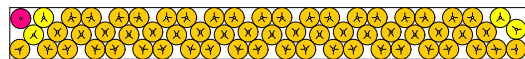**63 circles in a 1x0.10000 rectangle**

radius = 0.019419727845   density = 0.746408713456
ratio = 5.149402751632   contacts = 145

N = 64

64 circles in a 1x0.10000 rectangle

radius = 0.019329293345   density = 0.751210761434
ratio = 5.173494872089   contacts = 145