pst-art-geometric
PostScript Geometric Art Construction

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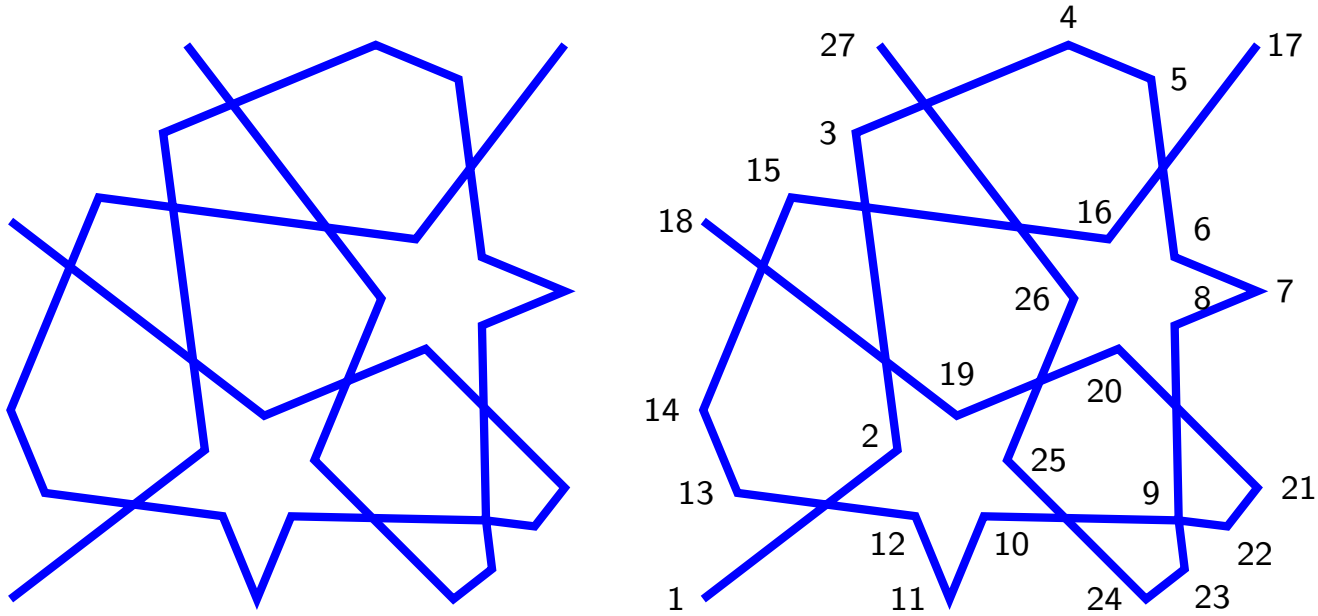
1 Geometric Pattern

1.1 Basic element of combined six and four fold geometry



1.2 Tiles with four and six folds

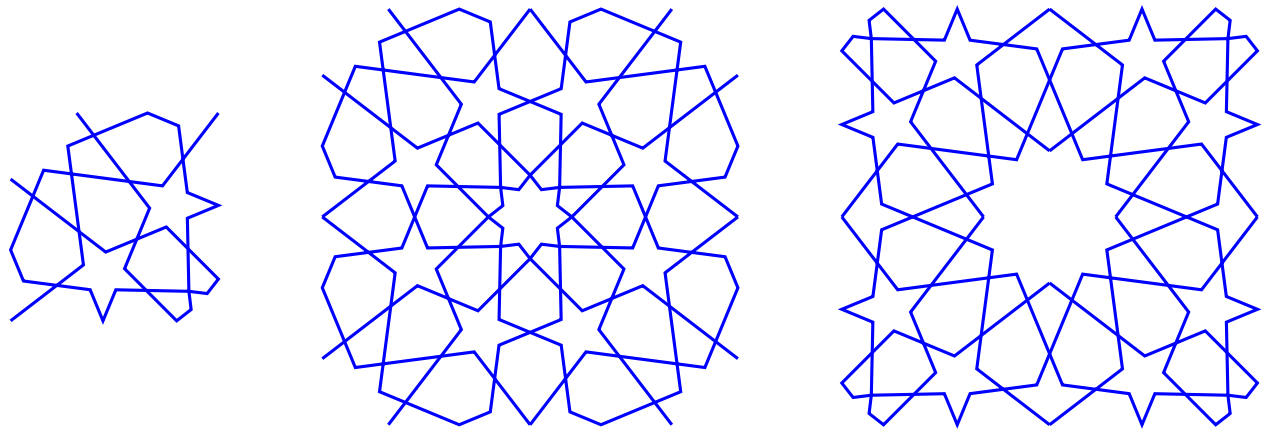


Figure 1: (a) basic quarter, (b) 8 pointed star with open ends, and (c) 12 pointed star with closed ends

1.3 Pattern with open and closed endings

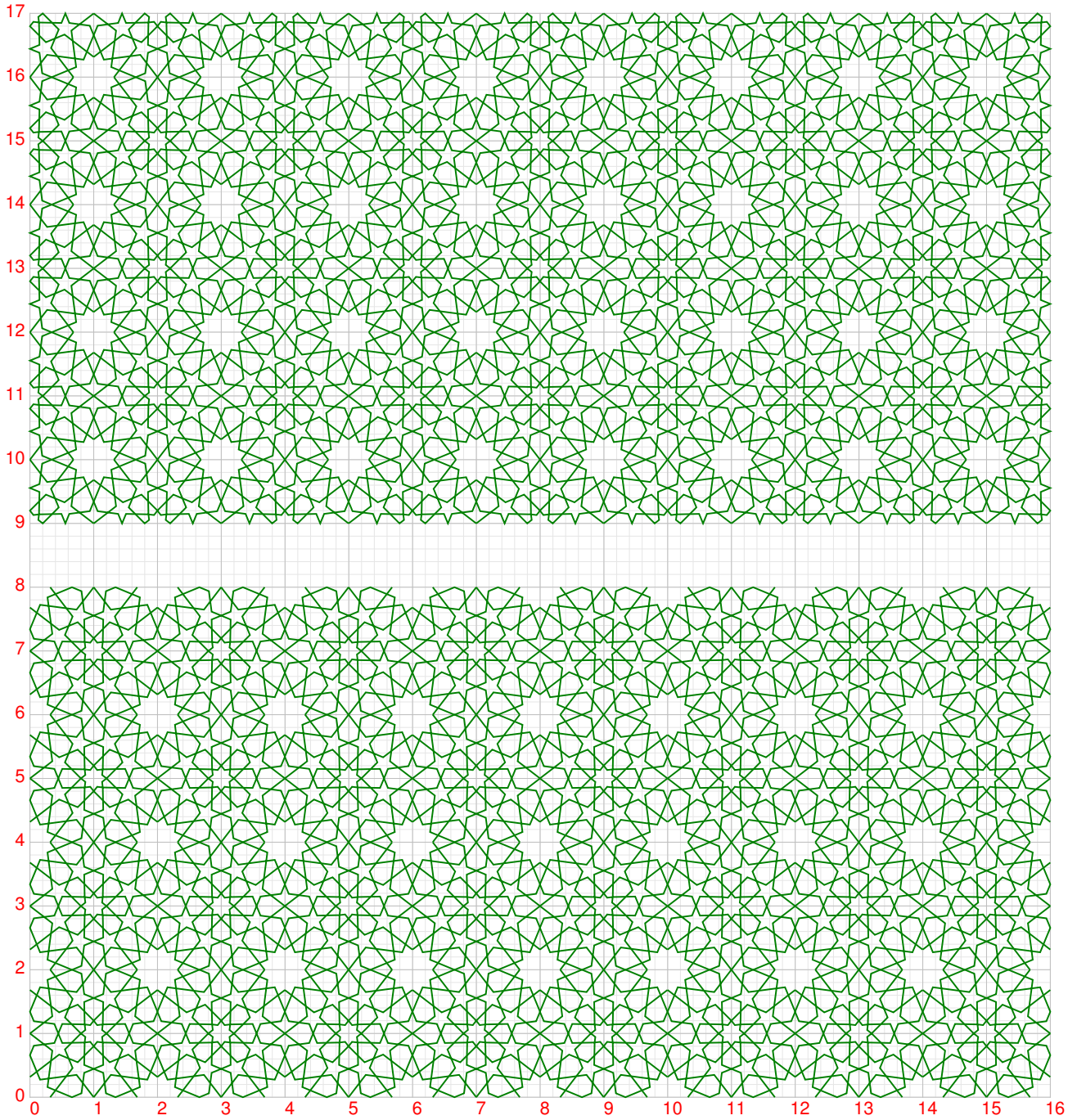
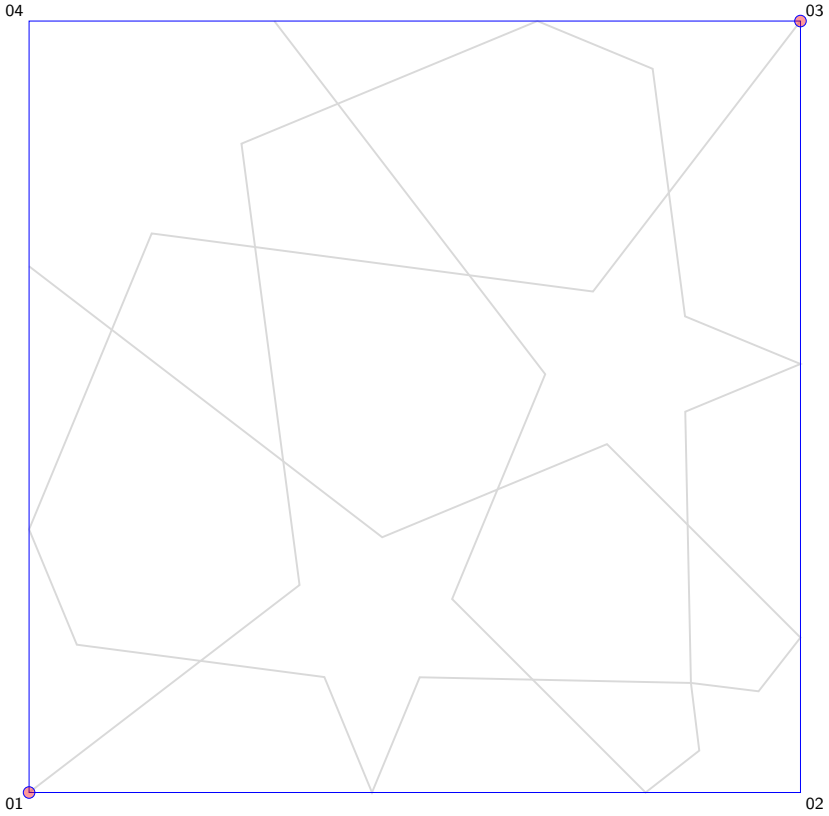


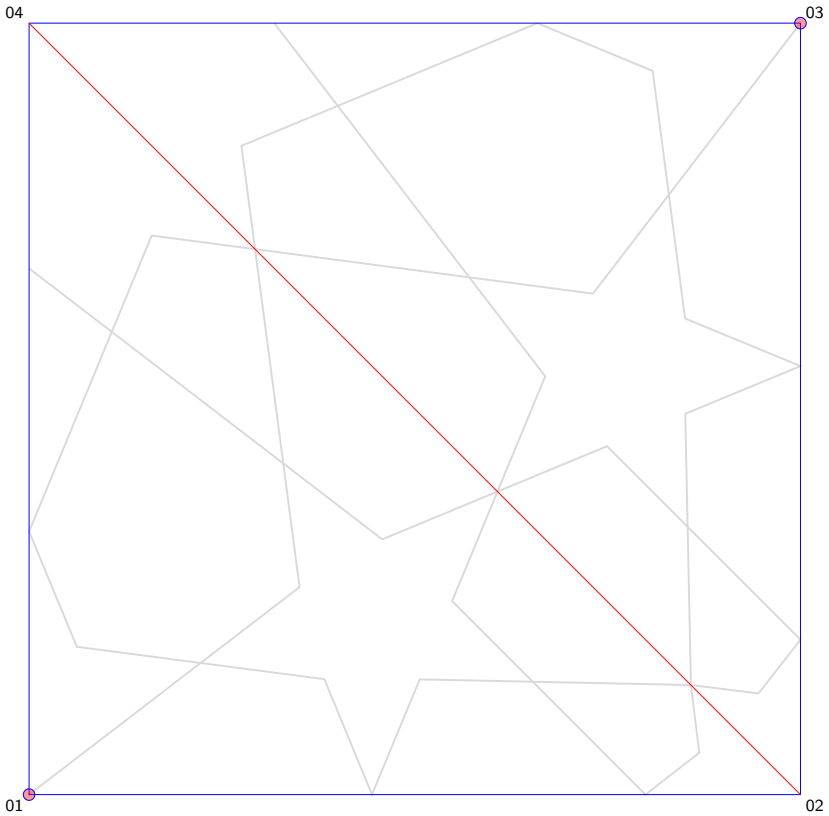
Figure 2: Pattern six and four fold combined tile with open endings

1.4 Construction of 6 and 4 fold geometry

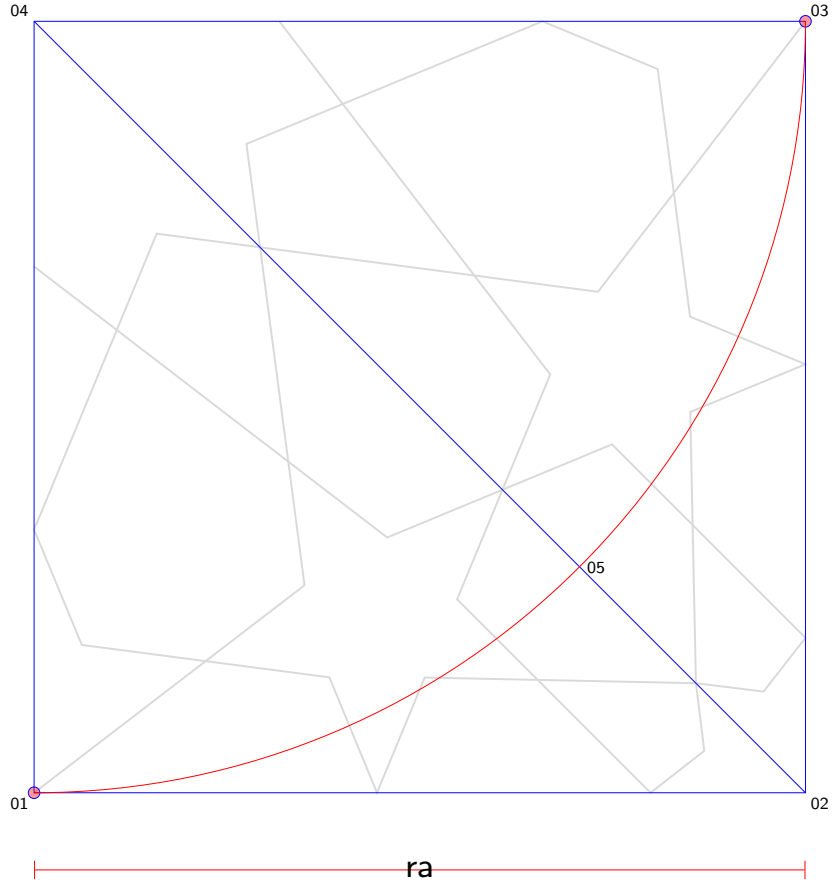
1.4.1 Step 1 - draw a rectangle



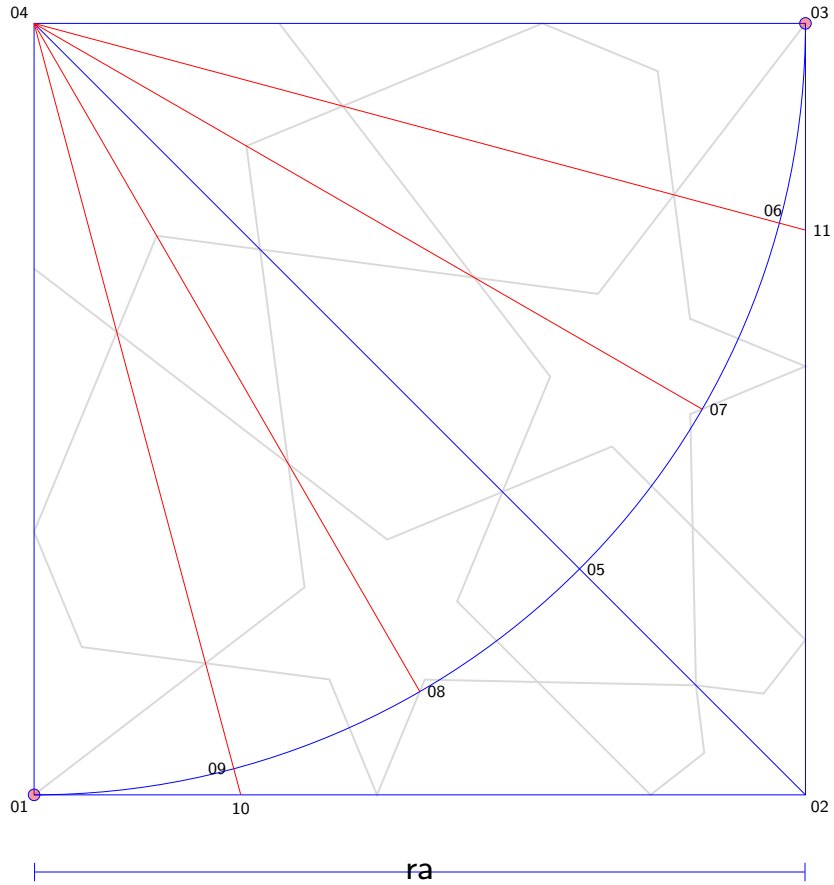
1.4.2 Step 2 - draw line 02-04



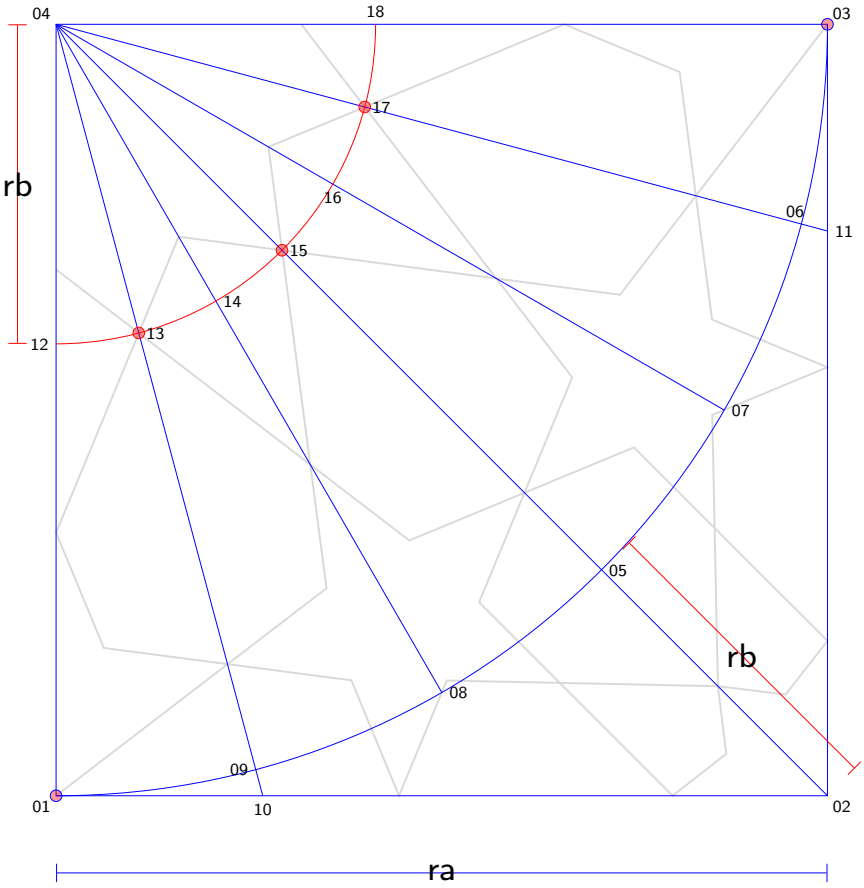
1.4.3 Step 3 - draw arch at 04 with radius ra = 05



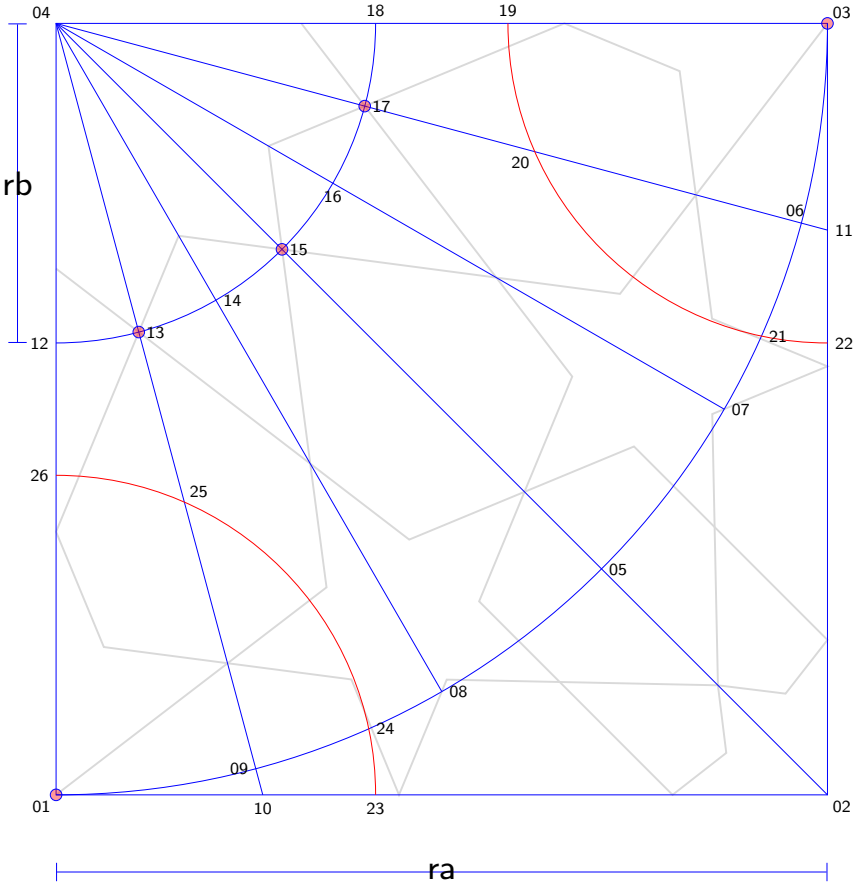
1.4.4 Step 4 - divide 04 angle into 6 equal parts of 15 deg = 11



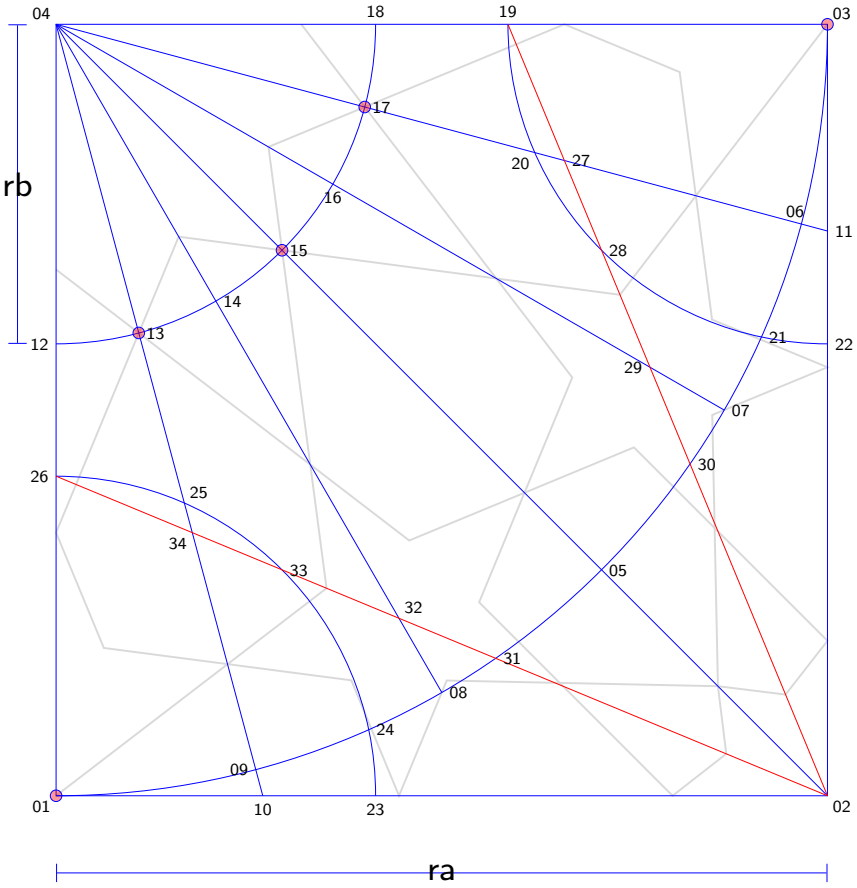
1.4.5 Step 5 - draw atc at 04 with radius rb=02-05 = 18



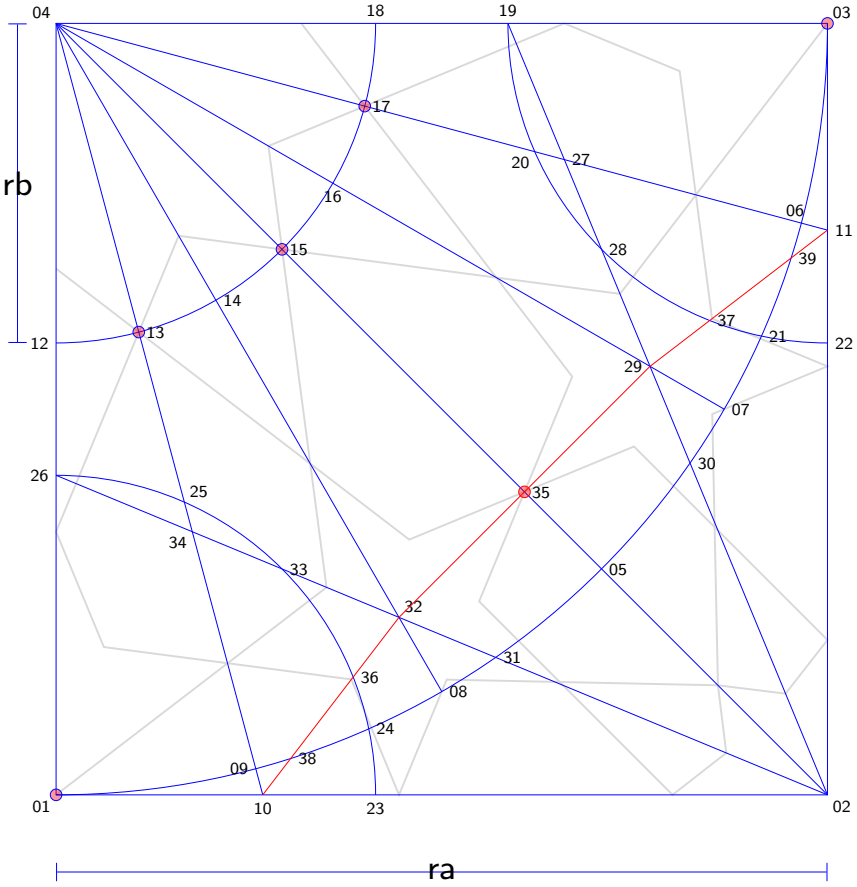
1.4.6 Step 6 - draw arc at 01 and 03 with radius rb = 26



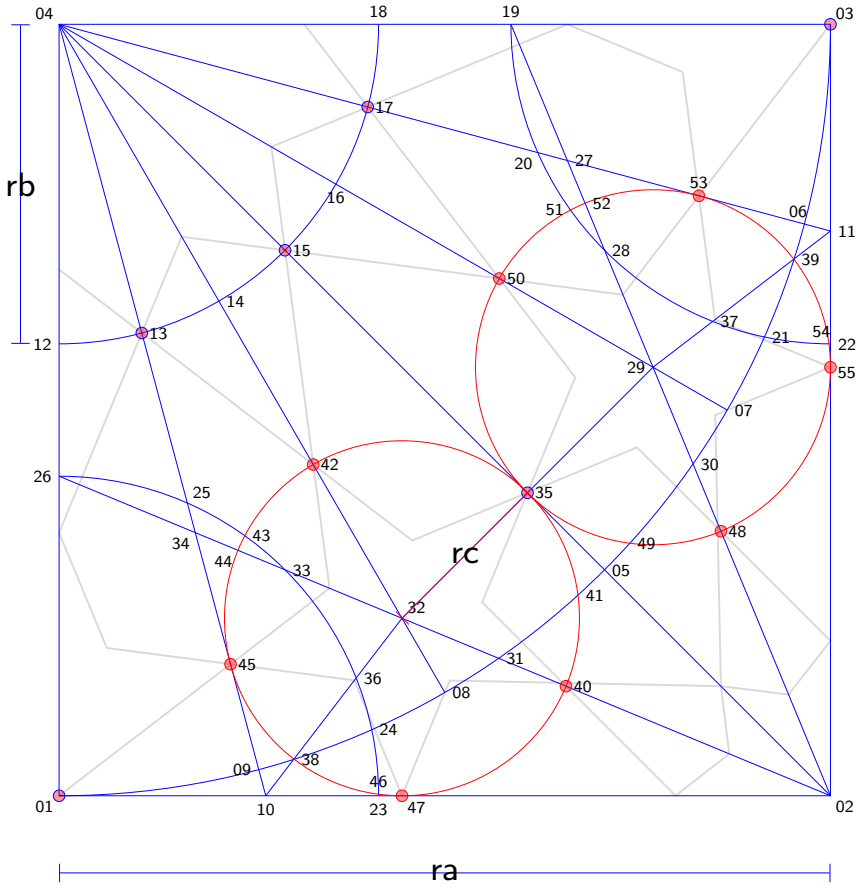
1.4.7 Step 7 - draw lines 02-19, 02-26 dividing 02 in 4 ang 22.5 deg = 34



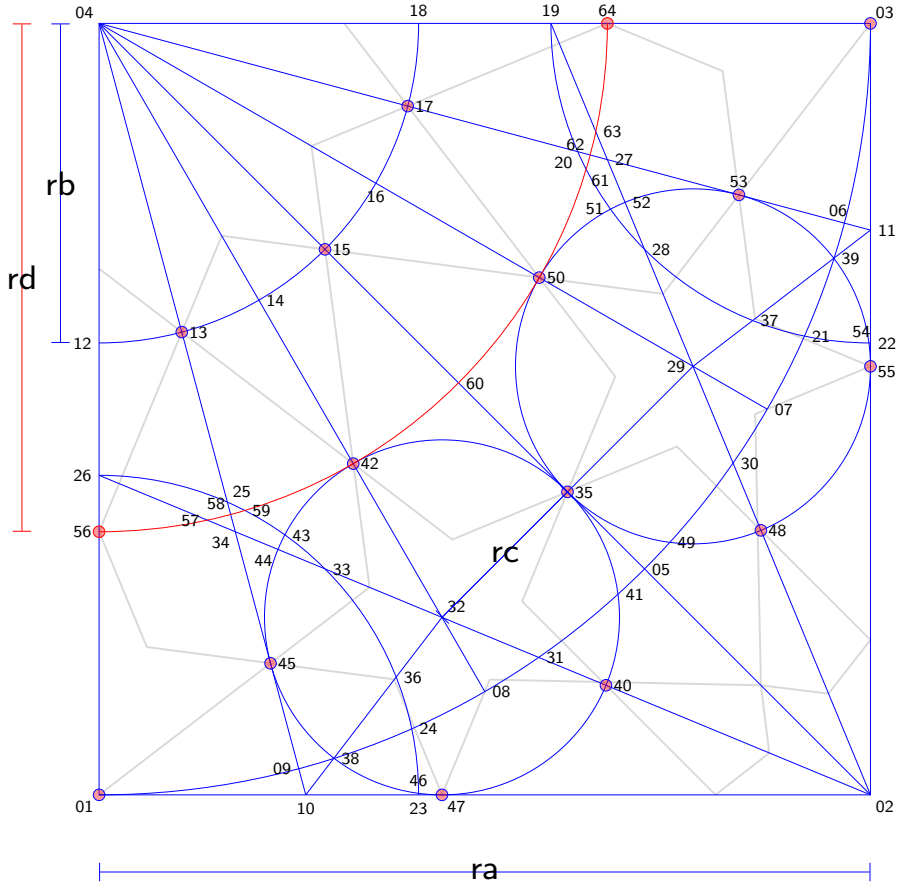
1.4.8 Step 8 - draw lines 10-32, 32-29, 29,11 = 39



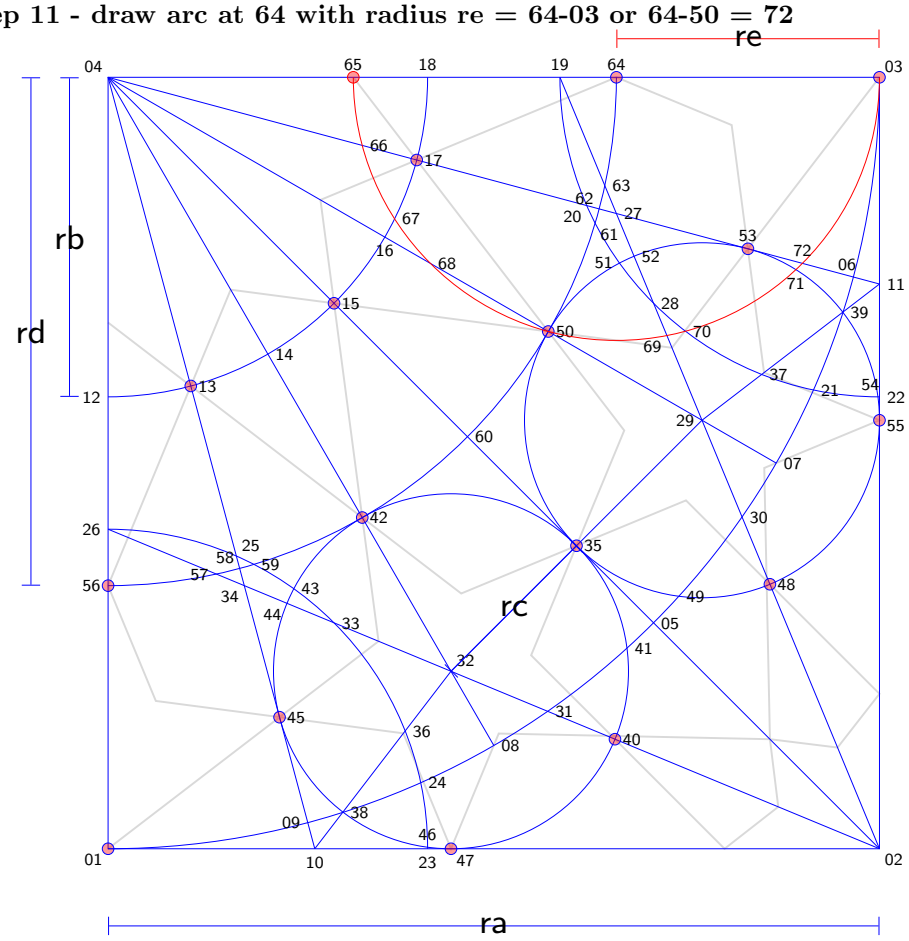
1.4.9 Step 9 - draw circles at 32, 29 with radius rc = 32-35 = 55



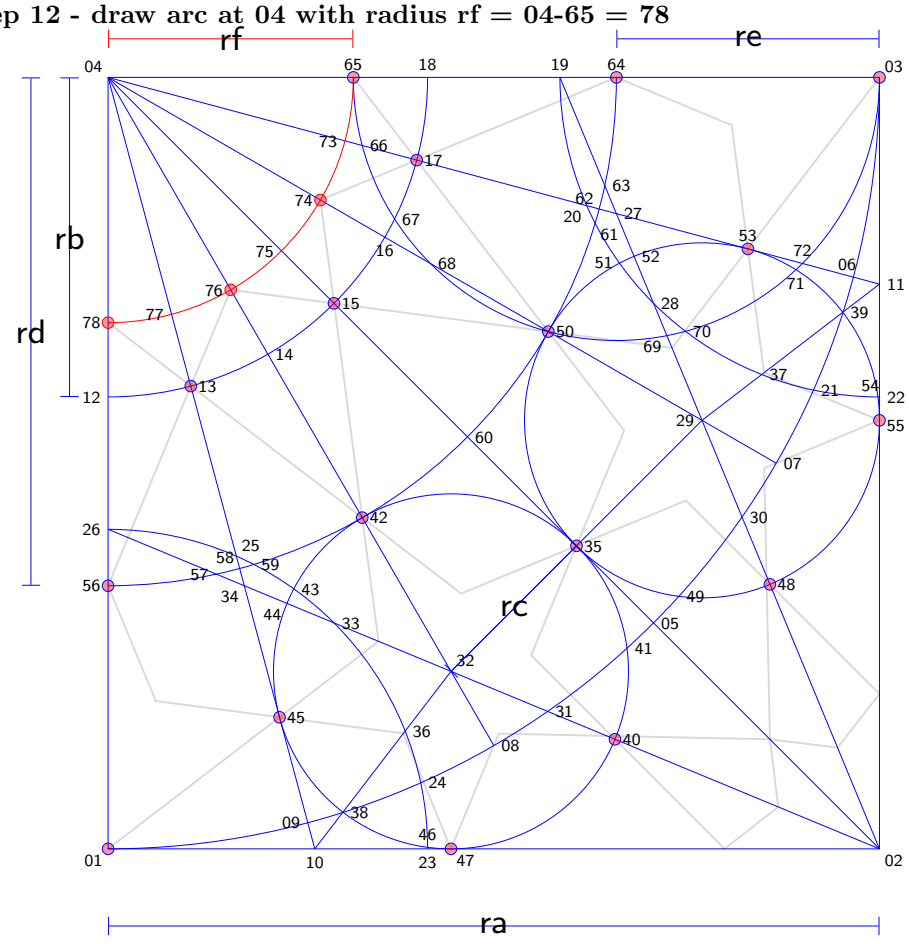
1.4.10 Step 10 - draw arc at 04 with radius rd = 04-42 = 64



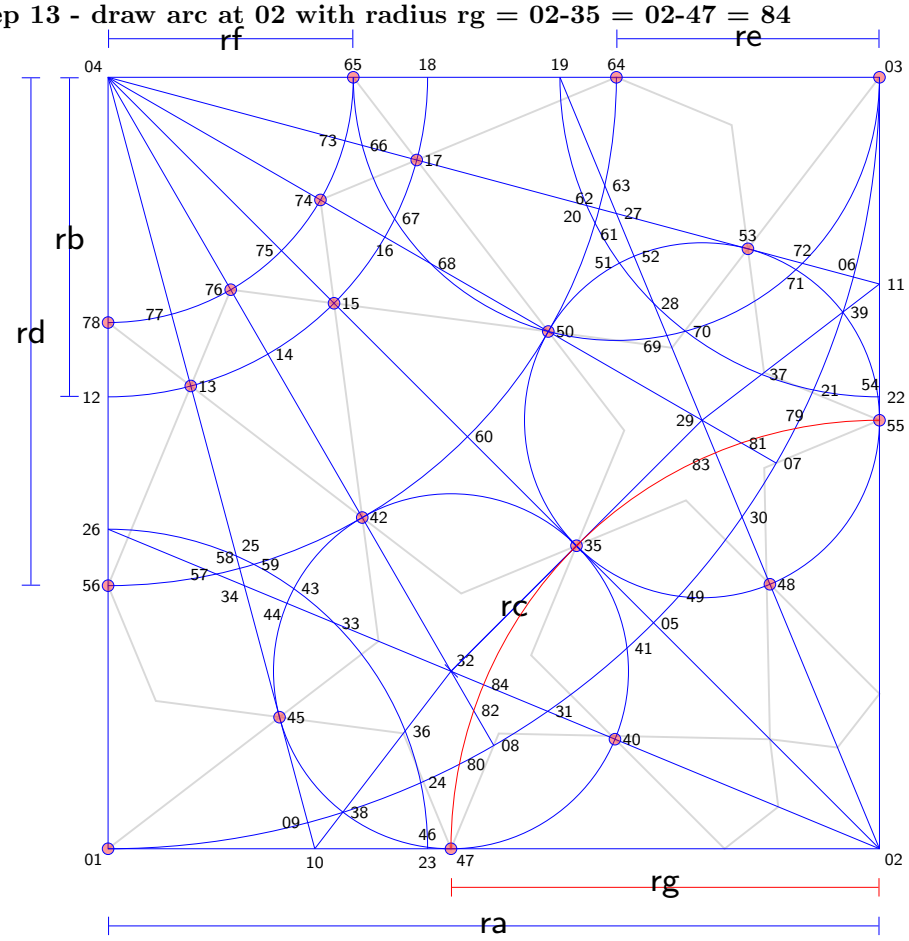
1.4.11 Step 11 - draw arc at 64 with radius re = 64-03 or 64-50 = 72



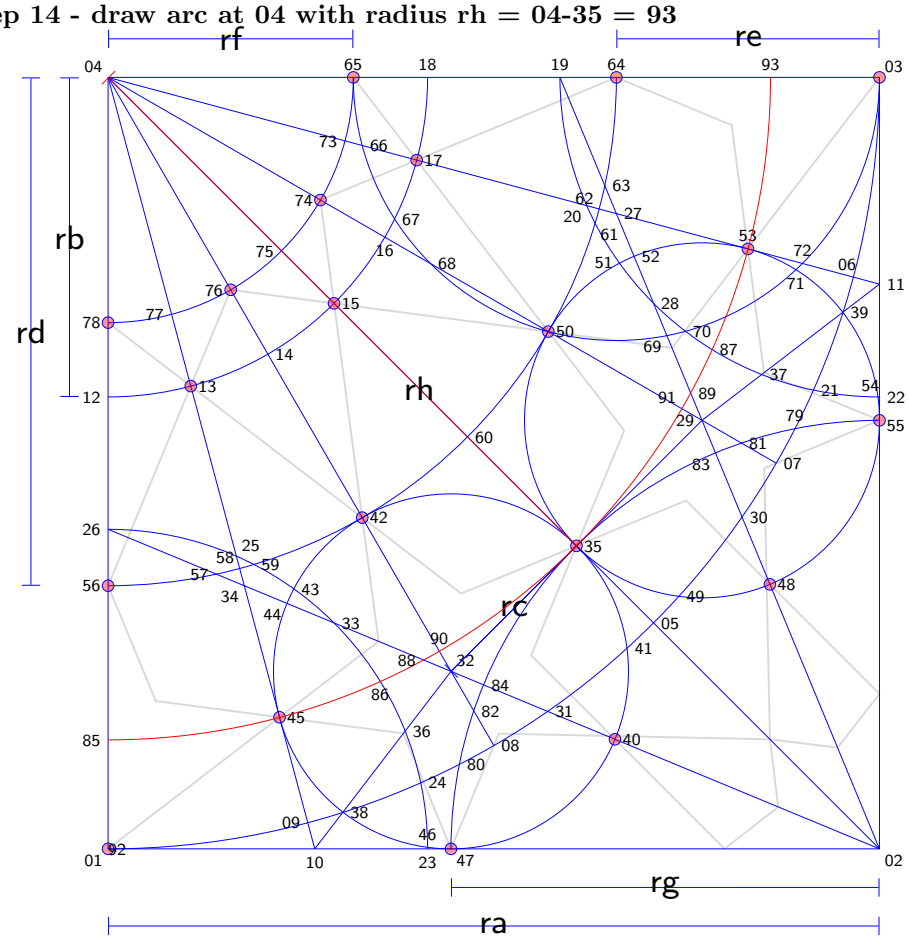
1.4.12 Step 12 - draw arc at 04 with radius rf = 04-65 = 78



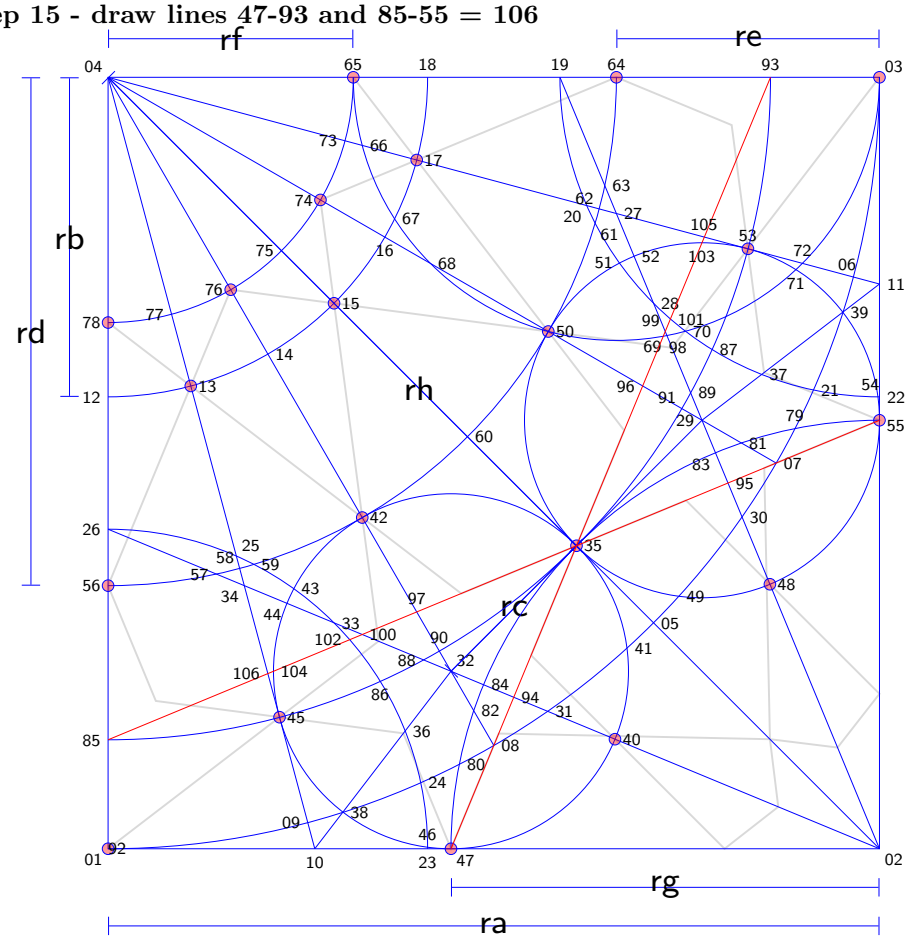
1.4.13 Step 13 - draw arc at 02 with radius rg = 02-35 = 02-47 = 84



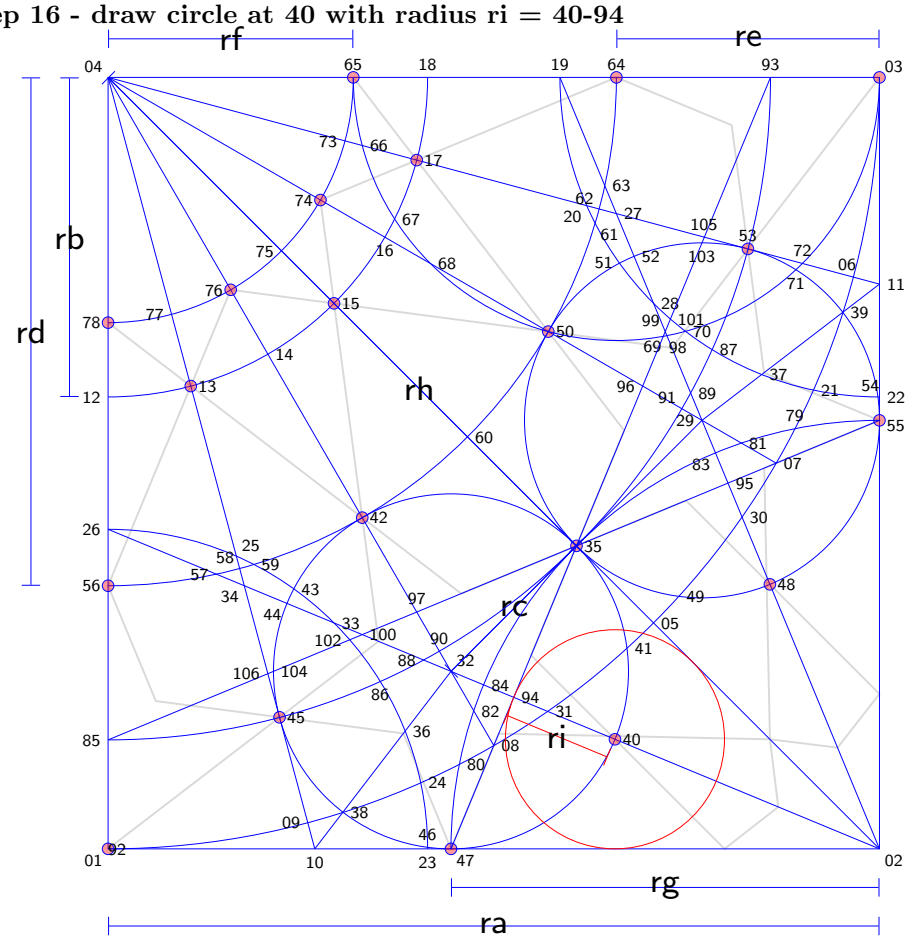
1.4.14 Step 14 - draw arc at 04 with radius rh = 04-35 = 93



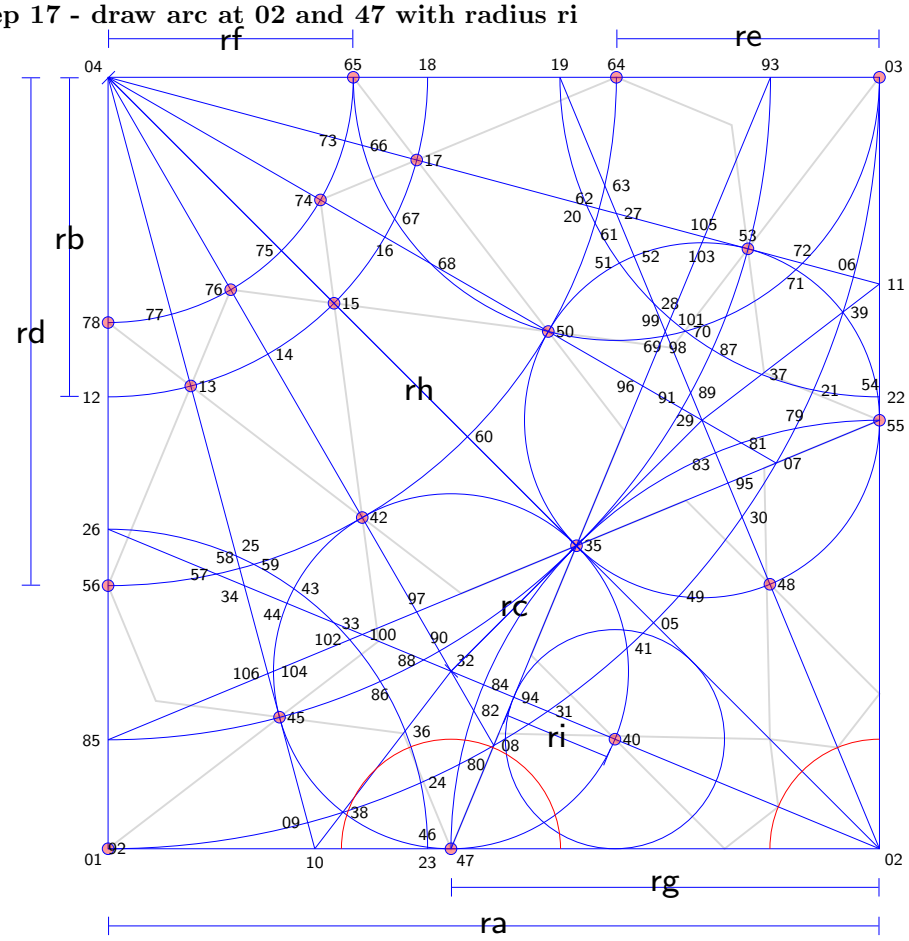
1.4.15 Step 15 - draw lines 47-93 and 85-55 = 106



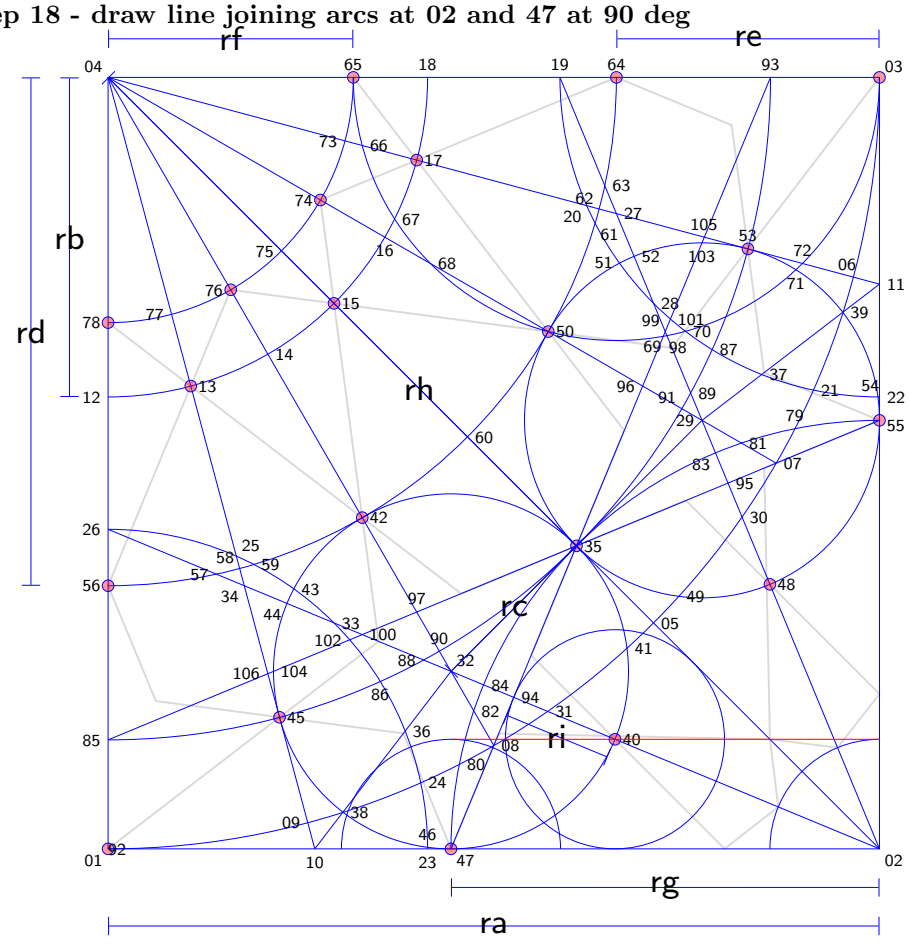
1.4.16 Step 16 - draw circle at 40 with radius ri = 40-94



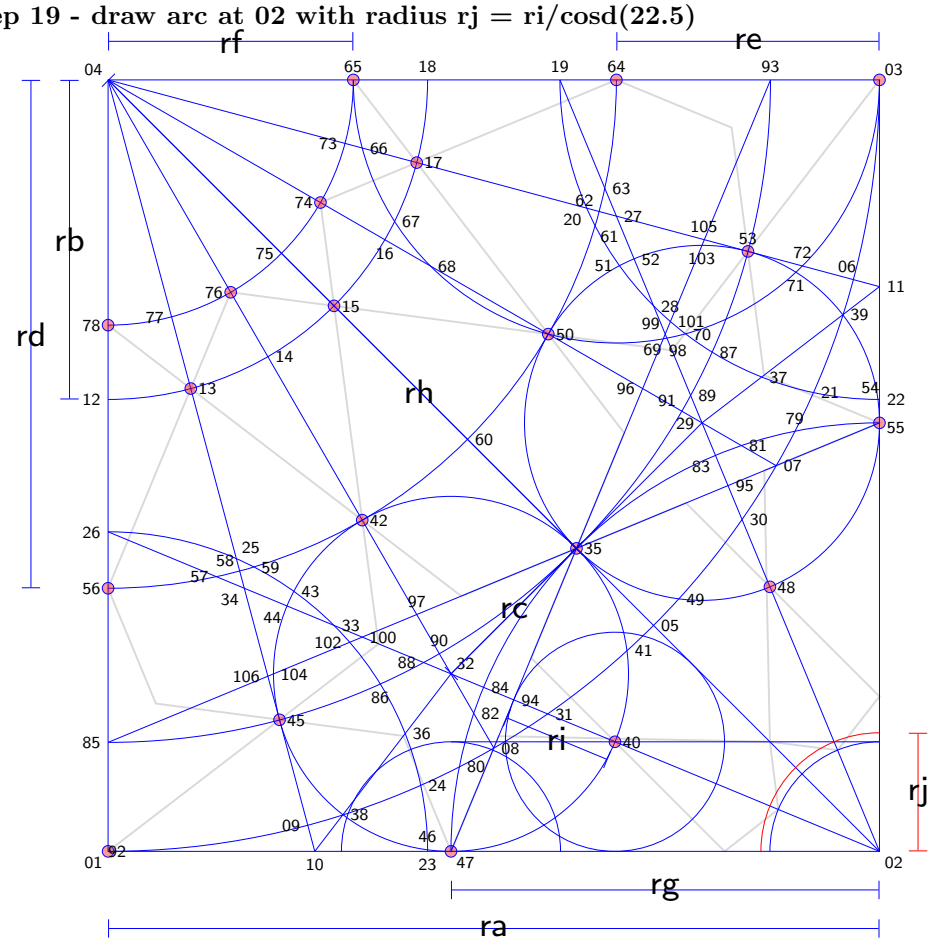
1.4.17 Step 17 - draw arc at 02 and 47 with radius ri



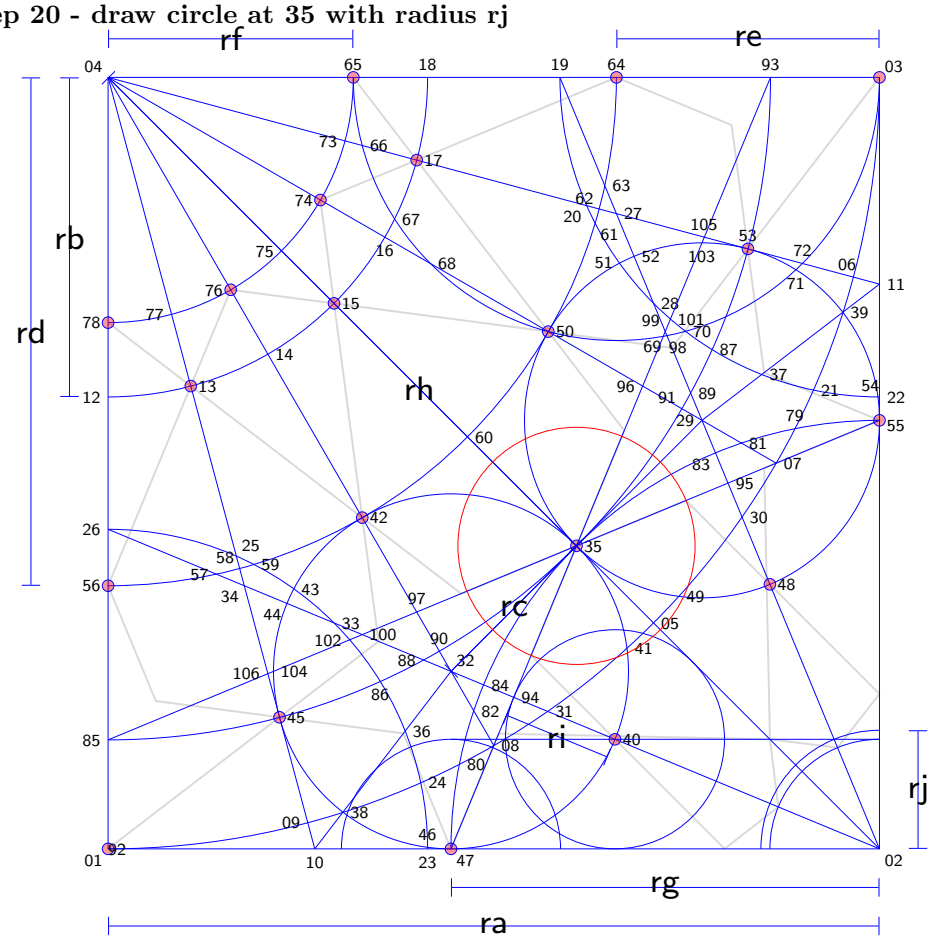
1.4.18 Step 18 - draw line joining arcs at 02 and 47 at 90 deg



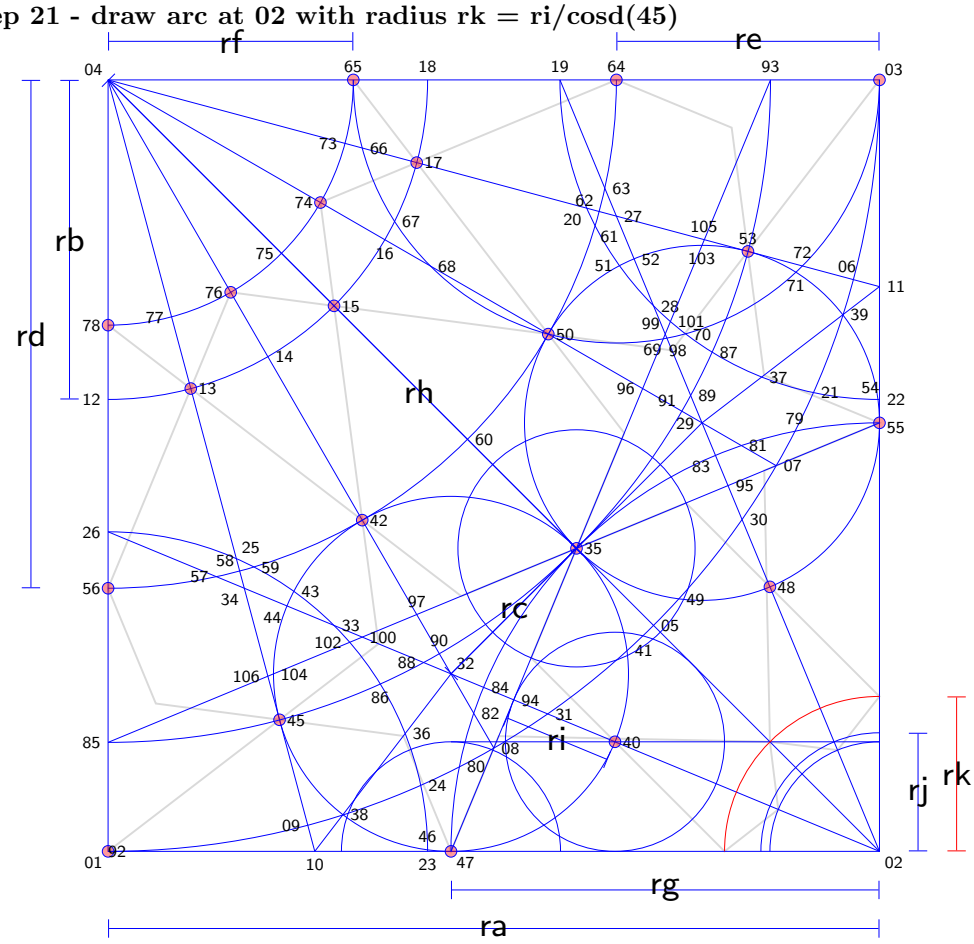
1.4.19 Step 19 - draw arc at 02 with radius rj = ri/cosd(22.5)



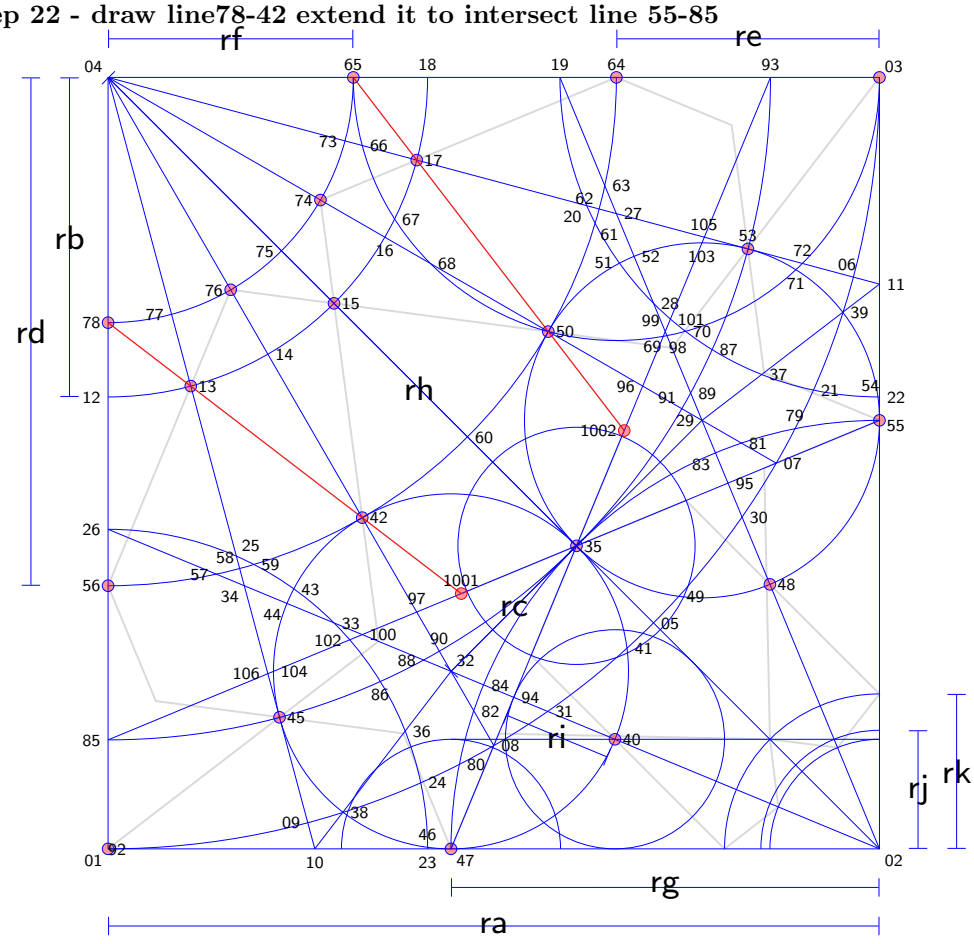
1.4.20 Step 20 - draw circle at 35 with radius rj



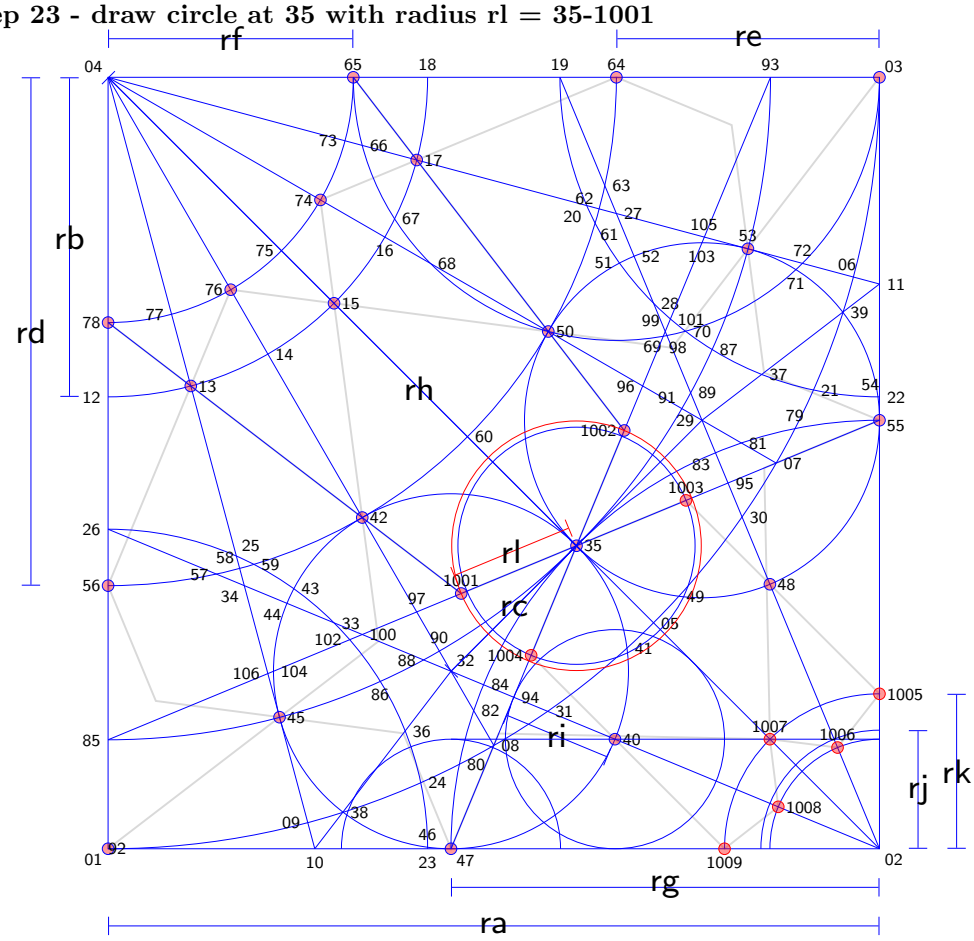
1.4.21 Step 21 - draw arc at 02 with radius rk = ri/cosd(45)



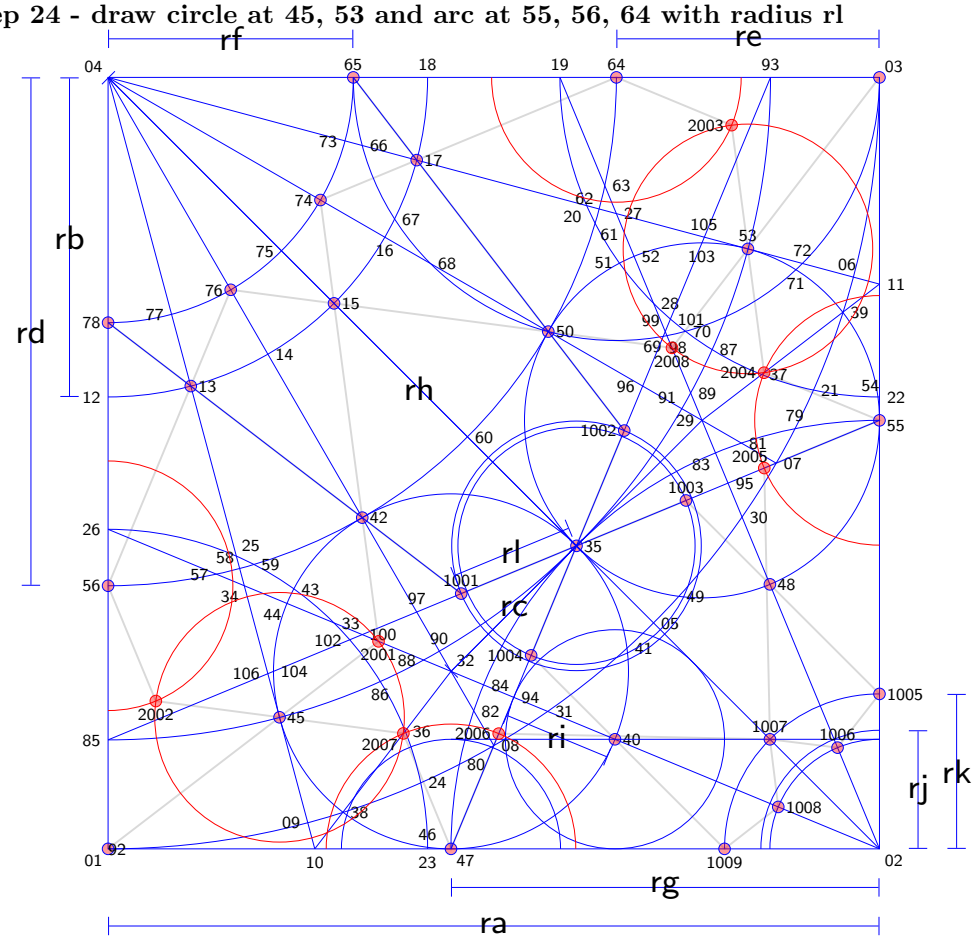
1.4.22 Step 22 - draw line78-42 extend it to intersect line 55-85



1.4.23 Step 23 - draw circle at 35 with radius rl = 35-1001



1.4.24 Step 24 - draw circle at 45, 53 and arc at 55, 56, 64 with radius rl



1.4.25 Step 24 - finally draw two pattern lines