\[(x-4)^2 + y^2 = 36\] \(y = 2-x\)

\[(y-6)^2 + x^2 = 4\]

\[(x-4)^2 + y^2 = 36\] \(\{y < 0\}\) \(\{x < 4\}\)

\[x = 2\] \(\{0 < y < 6\}\)

\[y = -x + 2\] \(\{2 < x < 4\}\)

\[(0, 8.5)\]

\[(-4, -4)\]

\[(4, -1)\]

\[x = 4\] \(\{-2 > y > -6\}\)