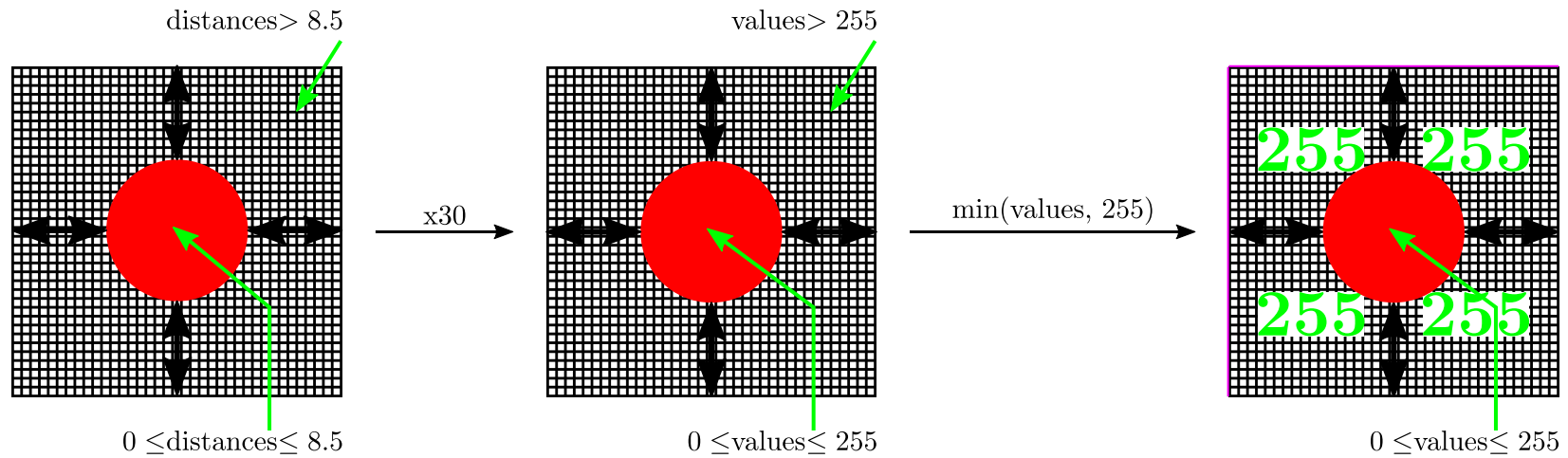If coefficient = 30, then 255/30 = 8.5.
All the distances greater or equal 8.5 give values greater or equal 255.

distances> 8.5

values> 255

x30

min(values, 255)

0 ≤distances≤ 8.5

0 ≤values≤ 255

0 ≤values≤ 255

If coefficient = 50, then 255/50 = 5.1.
All the distances greater or equal 5.1 give values greater or equal 255.

distances> 5.1

values> 255

x50

min(values, 255)

0 ≤distances≤ 5.1

0 ≤values≤ 255

0 ≤values≤ 255