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(c) Image after nearest neighbour interpolation

(d)

(e) If we choose n collinear points, then the points matrix with columns [1,x,y] will have linearly dependent columns. This will reduce the number of equations to 1, and therefore we will have infinite values of affine matrix satisfying As there are n collinear points, the problem changes to alligning to lines with different slopes, which is possible by simple rotation and scaling