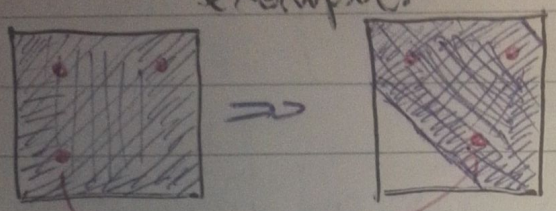
Affine Transformation

Here, you pick 3 points on the image and then, you pick the 3 new points, where you want each each older point to be moved at.

example:



moving this point to the right

Image gets stretched, but parallel points stay parallel with the image pixels.

you can even rotate or flip the image with this

```
# pick the three starting points:
pointsA = np.float32([[x1, y1], [x2, y2], [x3, y3]])
# pick the new points, that the old points will be moved.
pointsB = np.float32([[x1N, y1N], [x2N, y2N], [x3N, y3N]])
# now we get Affine transform and then warpAffine
matrix = cv2.getAffineTransform(pointsA, pointsB)
result = cv2.warpAffine(img, matrix, (cols, rows))
```

Note: making circles (points in img)

```
cv2.circle(img, (x, y), radius, (B, G, R), thickness)
```

- where x, y is the position of the center of circle
- radius: is the rad of the circle
- BGR defines the color of the circle
- thickness defines How thick will the circle be ~~(fill or~~
  if thickness = -1 then it will fill the circle