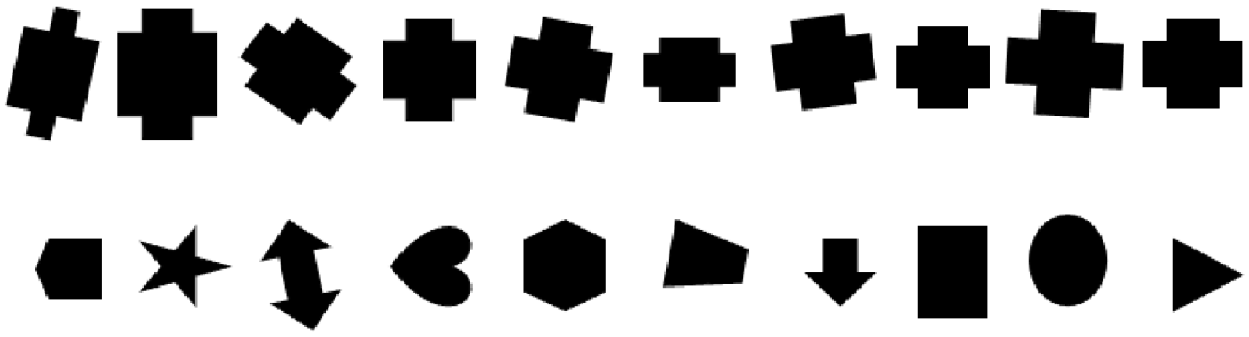
Lab 9

Matching

```
BW = rgb2gray(imread("creus_no_creus (1).png"));
imshow(BW);
```



```


BW = BW < 200;
BWU = BW; BWU(end/2:end, :) = 0;
BWD = BW; BWD(1:end/2, :) = 0;

CCU = bwconncomp(BWU);
CCD = bwconncomp(BWD);

propsU = regionprops('table', CCU, 'Centroid', 'BoundingBox', 'Perimeter', 'Circularity', 'Soli
propsD = regionprops('table', CCD, 'Centroid', 'BoundingBox', 'Perimeter', 'Circularity', 'Soli

NumObj = CCD.NumObjects
```

```
NumObj = 10
```

```


FU = [propsU.Perimeter ./ propsU.MinFeretDiameter, propsU.Circularity, propsU.Solidity, propsU.
FD = [propsD.Perimeter ./ propsD.MinFeretDiameter, propsD.Circularity, propsD.Solidity, propsD.

Features = [FU ; FD];
Output = false([2*NumObj, 1]);
Output(1:NumObj) = true;

out = trainedModel.predictFcn(Features)
```

```
out = 20×1 logical array
   1
   1
   1
   1
```

1
1
1
1
1
1
⋮