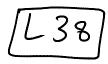
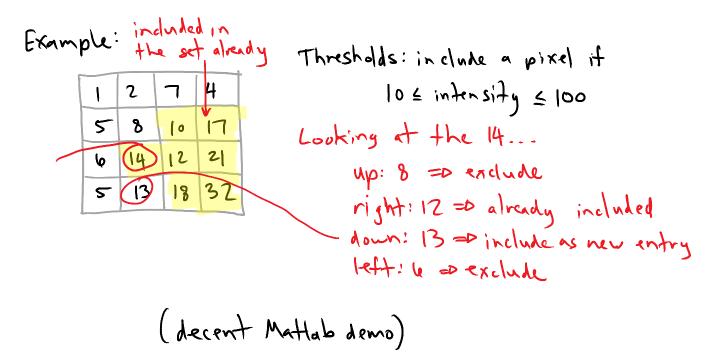
Region Growing



Goal: To use spatial continuity to guide our thresholding method for segmentation.

The idea is to start with a small set of "seed" pixels, and grow out from them. It is an iterative process.

```
for each pixel in the set
   for each of its neighbours not yet included
    if the intensity falls between the thresholds
     add it to our set
    endif
   next neighbour
   next pixel in the set
until no pixels were added in the last pass
```



You can make the method more sophisticated by coming up with different conditions for the inclusion/exclusion of pixels.

Examples:

1. Choose lower and upper thresholds based on currently-

included pixels.

i.e. compute
$$M$$
 & α of selected pixels
Then low = $M-2\sigma$
high = $M+2\sigma$

2. Use a local pixel quantity other than raw intensity.

END