

Homework-6

Question 1

1	2
7	3

A

2	2
2	2

B

8	9
11	10

C

11	20
40	30

D

100	100
100	100

E

A,B,C,D,E above are 5 small windows in an image. Our goal is to use template matching to detect the following pattern:

1	2
4	3

I

If the technique of non-normalized cross correlation is used, which pattern gives the best match value?

Answer:

II

If the technique of normalized cross correlation is used, which pattern gives the best match value?

Answer:

Note:

You are only asked to consider the case in which the pattern is on top of each of the five alternatives. This means that in each case you need only compute 5 values.

Question 2

Describe the result of detecting the template

1	2	1
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in the image (all unspecified values are 0).

[illegible]

- a. with non-normalized cross correlations matching.
- b. with normalized cross correlations matching.

[illegible]

[illegible]