

# Basic image processing

Quiz, 5 questions

1  
point

1.

Consider linear contrast correction. Given  $y_{\min} = 10$  and  $y_{\max} = 207$ , compute value of pixel with  $y = 54$  after correction. Round result to the nearest integer.

For example, if you get 90.5, type 91

57

1  
point

2.

Convolve a small (4x4 pixels) image  $I$  with a 2x2 kernel  $K$  and write result. Don't use any padding for convolution. Input integer output elements only. Place result of convolution in the variable **answer**.

```
1 I = [[8, 6, 2, 7], [6, 2, 4, 1], [5, 8, 5, 2], [3, 0, 3, 2]]
2 K = [[4, 3], [7, 2]]
```

```
1 answer = [[84, 48, 69],
2           [73, 76, 38],
3           [75, 63, 41]]
```

Run

Reset

1  
point

3.

You are given images with unknown gamma correction parameters. Choose appropriate gamma for each image. Available gamma values are 0.5, 0.75, 1, 1.5, 2. Type in a comma-separated list of gamma values corresponding to the following list of images. Example of answer: 2, 1.5, 1, 0.75, 0.5

Image 1

# Basic image processing

Quiz, 5 questions



Image 2



Image 3



Image 4

# Basic image processing

Quiz, 5 questions

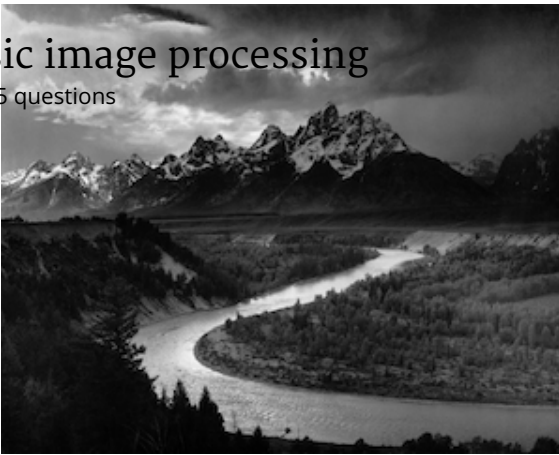


Image 5



0.5, 1.5, 2, 1, 0.75

1  
point

4.

How many convolution operations are needed for canny edge detector?

3

1  
point

5.

Imagine that you want to store color images with alpha (opacity) channel. Four numbers are used for every pixel: three color values (R, G, B) from range  $[0..31]$  and one opacity value from range  $[0..63]$ . How many bits are used for every pixel?

21

## Basic image processing

Quiz, 5 questions



I, **Chinmay kumar Das**, understand that submitting work that isn't my own may result in permanent failure of this course or deactivation of my Coursera account.

[Learn more about Coursera's Honor Code](#)

Submit Quiz

