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PyImageSearch Gurus Course

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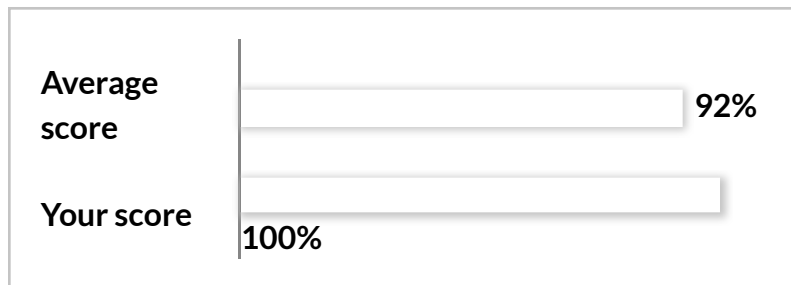# Kernels Quiz

Results

3 of 3 questions answered correctly

Your time: 00:03:05

You have reached 3 of 3 points, (100%)

Average score	92%
Your score	100%

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/?quiz_type=lesson&quiz_redirect=1&lesson_id=1018&quiz_id=1667)

Restart quiz   **View questions**

1. Question

What does the following kernel do:

$$K = \frac{1}{9} \begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix}$$

○ Smooths an image using a 5×5 averaging kernel.

◉ **Smooths an image using a 3×3 averaging kernel.**

○ Smooths an image using a 7×7 averaging kernel.

○ Smooths an image using a 3×3 Gaussian kernel.

Correct

2. Question

Convolve the following two matrices:

$$\begin{bmatrix} -1 & 0 & 1 \\ -2 & 0 & 2 \\ -1 & 0 & 1 \end{bmatrix} \star \begin{bmatrix} 202 & 119 & 154 \\ 106 & 119 & 11 \\ 186 & 48 & 250 \end{bmatrix} =?$$

○ -200

◉ **-174**

○ 99

○ 57

Correct

3. Question

We need to smooth the following image region with a *3 x 3* averaging kernel — what is the (approximate) output value?

$$K = \frac{1}{9} \begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix} \star \begin{bmatrix} 18 & 143 & 222 \\ 233 & 179 & 97 \\ 234 & 142 & 149 \end{bmatrix} =?$$

○ 120

◉ **157**

○ 161

○ 177

Correct

Course Progress

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Resources & Links

- PyImageSearch Gurus Community (https://community.pyimagesearch.com/)
- PyImageSearch Virtual Machine (https://gurus.pyimagesearch.com/pyimagesearch-virtual-machine/)
- Setting up your own Python + OpenCV environment (https://gurus.pyimagesearch.com/setting-up-your-python-opencv-development-environment/)
- Course Syllabus & Content Release Schedule (https://gurus.pyimagesearch.com/course-syllabus-content-release-schedule/)
- Member Perks & Discounts (https://gurus.pyimagesearch.com/pyimagesearch-gurus-discounts-perks/)
- Your Achievements (https://gurus.pyimagesearch.com/achievements/)
- Official OpenCV documentation (http://docs.opencv.org/index.html)

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