Quiz: Color Quantization with OpenCV using K-Means Clustering

Question #1: What is color quantization?

A. The process of building an image search engine
B. The process of reducing the number of distinct colors in an image
C. The process of increasing the number of colors in an image
D. The process of clustering pixels in an image

Question #2: Why are the pixels clustered in the L*a*b* color space rather than RGB?

A. Because the L*a*b* color space was specifically designed for color quantization
B. Because the k-means algorithm will only work with pixels in the L*a*b* color space
C. Because in the L*a*b* color space the Euclidean distance has perceptual meaning
D. We did not cluster pixels in the L*a*b* color space

Question #3: On Line 27, why did we use NumPy to reshape our image?

A. To make it compatible with our k-means algorithm
B. So it could be converted to the L*a*b* color space
C. So we could construct our output image
D. We did not need to reshape our image

Question #4: As we increase the value of k in our cluster algorithm...

A. ...the larger our output image will be (in terms of width and height
B. ...the faster our clustering algorithm will run
C. ...the number of colors in our quantized image will increase
D. ...the value of k has no affect on our algorithm

Answers: Color Quantization with OpenCV using K-Means Clustering

Question #1: B
Question #2: C
Question #3: A
Question #4: C