1 point

1. What is the weight that EM assigns to the first component after running the above codeblock? Round your answer to 3 decimal places.

0.301

1 point

2. Using the same set of results, obtain the mean that EM assigns the second component. What is the mean in the first dimension? Round your answer to 3 decimal places.

4.942

1 point

3. Using the same set of results, obtain the covariance that EM assigns the third component. What is the variance in the first dimension? Round your answer to 3 decimal places.

0.671

1 point

4. Is the loglikelihood plot monotonically increasing, monotonically decreasing, or neither?

- (•) Monotonically increasing
- ( ) Monotonically decreasing
- ( ) Neither

1 point

5. Calculate the likelihood (score) of the first image in our data set (img[0]) under each Gaussian component through a call to `multivariate_normal.pdf`. Given these values, what cluster assignment should we make for this image?

- ( ) Cluster 0
- ( ) Cluster 1
- ( ) Cluster 2
- (•) Cluster 3

1 point

6. **Four** of the following images are **not** in the list of top 5 images in the **first cluster**. Choose these four.

- [x] Image 1

- [x] Image 2

- [ ] Image 3

- [ ] Image 4

- [ ] Image 5

- [x] Image 6

- [x] Image 7