

In-Video Quiz Questions for
Unit 3: Part 1 – (2) CLT (for the mean) examples

(04:15) – slide 3, after “How do we calculate this probability?”

1. Which of the following is equivalent to the desired probability?

$$P(X_1 + X_2 + \cdots + X_{100} > 360 \text{ min}) = ?$$

- (a) P(each song on the playlist lasts at least 3.6 minutes)
- (b) P(average song length is at least 3.6 minutes)

(06:39) – slide 3, after “So next, we calculate the Z-score.”

2. In calculating the Z score do we plug in the standard deviation (1.63) or the standard error (0.163) in the denominator?

- (a) standard deviation (1.63)
- (b) standard error (0.163)

(09:26) – slide 4, after “especially the interplay between the shape and the sample size.”

3. Given that the population is right skewed, which of the following distributions will resemble a normal distribution most closely?

- (a) a single random sample of 100 observations from this population
- (b) a distribution of 100 sample means from random samples with size 7
- (c) a distribution of 100 sample means from random samples with size 49

Answers:

1. b
2. b
3. c