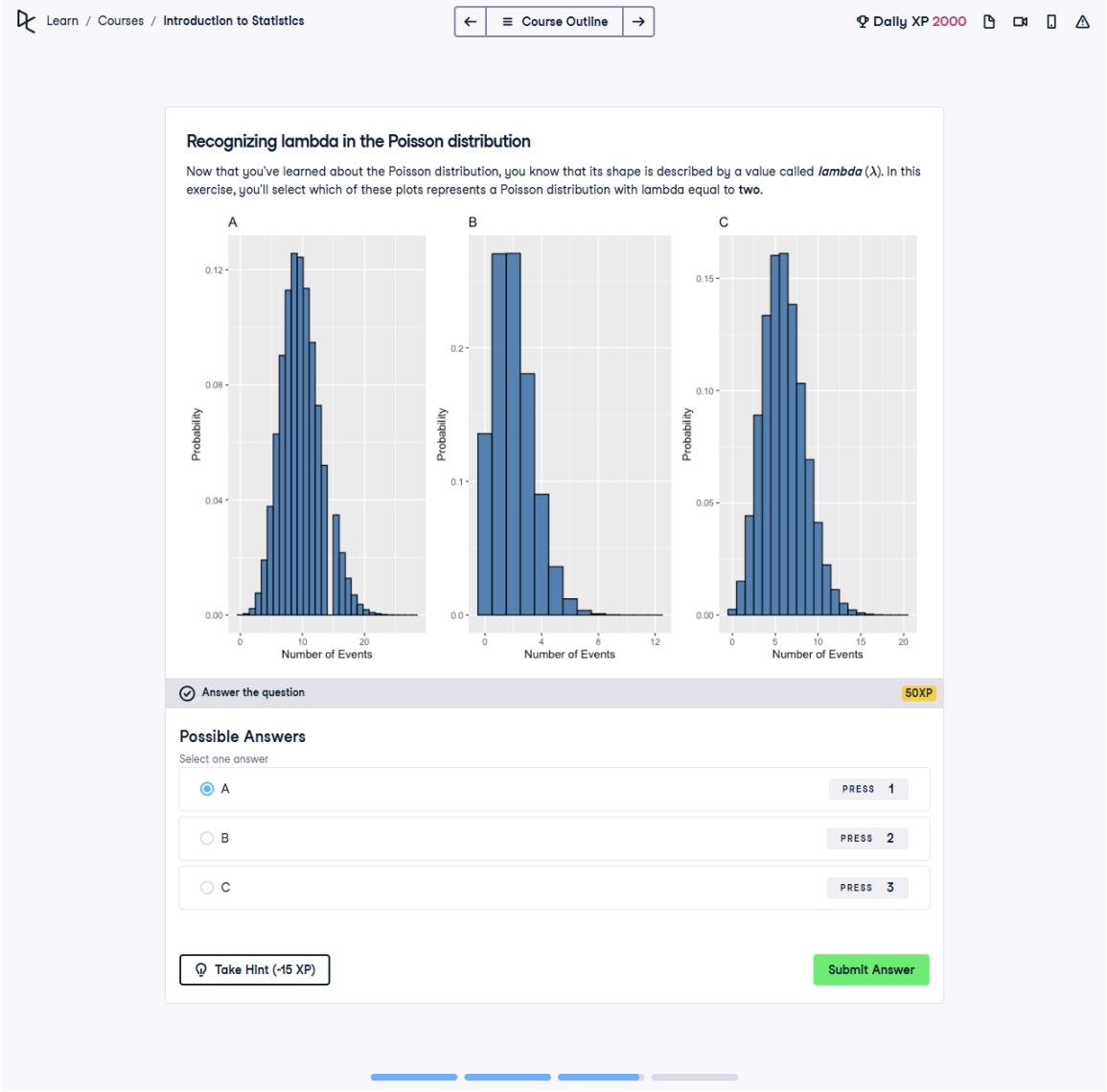
Recognizing Lambda in the Poisson Distribution

Now that you've learned about the Poisson distribution, you know that its shape is described by a value called lambda (λ). In this exercise, you'll select which of these plots represents a Poisson distribution with lambda equal to two.



Answer

Answer: Plot B

Explanation: In a Poisson distribution, lambda (λ) represents the average number of events in a given interval. For λ = 2, the distribution is centered around 2, with most of the probability mass close to this value, which is reflected in Plot B.

Explanation of the Answer

To identify the correct plot:

1. **Understanding Lambda (λ):**
- Lambda (λ) is the mean or expected number of events in a Poisson distribution.
- The peak of the distribution is typically near λ, and the probability decreases for values further away from λ.

2. **Analysis of the Plots:**
- Plot A has a peak near 1, indicating λ = 1.
- Plot B has a peak near 2, with the probability mass concentrated around this value, matching λ = 2.
- Plot C has a peak near 7, indicating λ = 7.

Thus, Plot B correctly represents a Poisson distribution with λ = 2.