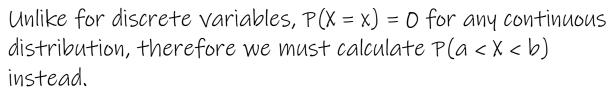


Fitting Continuous Distributions

Continuous Distributions

The Continuous Uniform Distribution



We may need to use the continuity correction

To calculate the necessary probabilities, we can use the formula

$$(x_1 - x_2) / (b - a)$$

The Normal Distribution

As with the Continuous Uniform Distribution, P(X = X) = 0 for any continuous distribution, therefore we must calculate P(a < X < b) instead.

We may need to use the continuity correction. Here, we can use the Normal CD function on the calculator.

The Exponential Distribution

As with the Continuous Uniform and Normal Distributions, P(X = X) = D when using the Exponential Distribution, therefore we must calculate P(a < X < b) instead. We may need to use the continuity correction We can use the Exponential formula $P(X \le X) = 1 - e^{-\lambda X}$ REMEMBER: $P(a \le X \le b) = P(X \le b) - P(X \le a) = (1 - e^{-\lambda b}) - (1 - e^{-\lambda a})$

 $= e^{-\lambda a} - e^{-\lambda b}$

