**7.6 Natural Logarithms**

**Objective: To evaluate and simplify natural logarithmic expressions  
To solve equations using natural logarithms**

**Euler Number**: e, also called the Natural Base e

**The Natural Base e**;

* Is an irrational number (decimal never ends or repeats)
* Derivation: as n approaches +∞, (1 + 1/n)n approaches

**e ≈ 2.718281828459**

Obeys the same characteristics and rules as Exponential Functions

*Examples:*

*Simplify the expression*

  

*Use a calculator to evaluate the expression*

 

*Tell whether the function is an example of exponential growth or decay.*

 

*Natural Logarithmic Function*

Example: Simplify

Solving a Natural Logarithmic Equations



**HMWK: page 480 #1-10, 11-33 (odd), 43-51 (odd)**