

**GSE PreCalculus: Unit – Natural Logarithms**  
**Solving Logarithmic Equations with ln and e**

Name \_\_\_\_\_

Date \_\_\_\_\_

**Convert natural log to Exponential:**

1.  $\ln(x-2) = 4$

2.  $\ln 54.6 = 4$

3.  $\ln a = z$

**Convert Exponential to natural log**

4.  $e^3 = 20.1$

5.  $e^x = w$

6.  $e^t = k$

**Solve the following logarithmic or exponential functions**

7.  $e^x = 45$

8.  $e^x - 21 = 14$

9.  $\ln(x+1) = \ln(5x-6)$

10.  $-4e^x + 21 = -39$

11.  $\ln 3x = 5$

12.  $\ln(4x-2) = 5$