### Name: \_\_\_\_\_ Properties of Logarithms Bell Work

1. Convert the expression  $\log_2 1024 = 10$  to Exponential form:

- a.  $10^2 = 1024$ b.  $2^{10} = 1024$ c.  $\log 1024 = 2$
- d. None of these.

2. Convert the expression  $5^{-2} = \frac{1}{25}$  to Logarithmic form:

a.  $\log_5 \frac{1}{25} = -2$ b.  $\log_2 5 = 25$ c.  $\log_5 \frac{1}{25} = 2$ d.  $\log_{25} 5 = -2$ 

#### 3. The Natural Logarithms are:

- a. Logarithms that have a base of 2
- b. Logarithms that have a base of e
- c. Logarithms that have a base of 10
- d. Logarithms that have a base of  $\boldsymbol{\pi}$

## 4. Evaluate logarithm $\log_{\frac{1}{2}} 4$ :

a. 2 b.  $\frac{1}{2}$ c.  $\sqrt{2}$ d. -2 \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_

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### Answers:

- **1.** b.  $2^{10} = 1024$
- 2. a.  $\log_5 \frac{1}{25} = -2$ 3. b. Logarithms that have a base of e
- **4.** d. –2