**Logs & Exponent Exam**

Write the following exponents in logarithmic form:

|  |  |
| --- | --- |
| Exponent Form | Log Form |
| 2^5 = 32 |  |
| 3^2 = 9 |  |
| 5^4 = 625 |  |
| 4^(-1) = ¼ |  |
| 6^3 = 216 |  |

Write the following logarithms in exponent form:

|  |  |
| --- | --- |
| Log Form | Exponent Form |
| Log(base 2)(16)=4 |  |
| Log(base 5)(125) = 3 |  |
| Ln 1 = 0 |  |
| Log(base 12)(12) = 1 |  |
| Log(base 10)(100) = 2 |  |

**Short Answer:**

Identify the parts of an exponent.

Identify the parts of a logarithm.

Explain what the common log is.

Explain what the natural log is.

Why is log(base 10) (10) = 1 ?

What is the relationship between a logarithm and an exponent?