# Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_

## **Unit 18 Review**

1. Rewrite each equation in exponential form.

|  |  |
| --- | --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. Rewrite each equation in logarithmic form.

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| --- | --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. Evaluate each logarithm by writing an equation in exponent form.

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| \_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |

1. Write each logarithmic expression as a single logarithm.

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| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. Expand each logarithmic expression.

|  |  |
| --- | --- |
| 1.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 1.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 1.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 1.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 1.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 1.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 1.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. Solve the following logarithmic equations.

|  |  |
| --- | --- |
| 1.

 \_\_\_\_\_\_\_\_\_\_\_ | 1.

 \_\_\_\_\_\_\_\_\_\_\_ |
|  \_\_\_\_\_\_\_\_\_\_\_ |  \_\_\_\_\_\_\_\_\_\_\_ |

1. Solve the following logarithmic equations using properties of logarithms.

|  |  |
| --- | --- |
| 1.

 \_\_\_\_\_\_\_\_\_\_\_ | 1.

 \_\_\_\_\_\_\_\_\_\_\_ |
|  \_\_\_\_\_\_\_\_\_\_\_ |  \_\_\_\_\_\_\_\_\_\_\_ |

**ANSWERS**