|  |
| --- |
| What is the inverse of… |
|  |  |
|  |  |
|  |  |
|  |  |

How do we find inverses?

**Step 1:** Change \_\_\_\_\_\_ to "\_\_\_\_\_\_"

**Step 2:** \_\_\_\_\_\_\_\_\_ the "\_\_\_\_\_" and "\_\_\_\_\_"

**Step 3:** \_\_\_\_\_\_ for "\_\_\_\_"

**Step 4:** Change "\_\_\_\_" to \_\_\_\_ to indicate the \_\_\_\_\_\_\_\_\_\_ function.

Examples: Find the inverse function.

|  |  |
| --- | --- |
| 1.)  | 2.)  |
| 3.)  | 4.)  |
| 5.)  |

When solving, you **MUST** isolate the exponential or log \_\_\_\_\_\_ applying its inverse.

Solving Exponential Equations with COMMON BASES or BASES THAT CAN BE REWRITTEN.

|  |  |
| --- | --- |
| 6.)  | 7.) |

Solving Exponential Equations with DIFFERENT BASES (that can NOT be rewritten)

*Example: Solve. Round decimals to the hundredths place if necessary.*

|  |  |
| --- | --- |
| **8.)**  | **9.)** |

Solving Equations with “e” and “ln”

*Example: Solve. Round decimals to the hundredths place if necessary.*

|  |  |
| --- | --- |
| **10.)**  | **11.)** |

Solving Equations with Common Logs

**\*** Just like exponential equations with common bases, logarithmic equations with common logs ***\_\_\_\_\_\_\_\_\_*** out.

*Example: Solve. Round decimals to the hundredths place if necessary.*

|  |
| --- |
| **12.)**  |

Solving Equations with Logs

*Example: Solve. Round decimals to the hundredths place if necessary.*

|  |  |
| --- | --- |
| 13.)  | 14.) log -m + 2 = 4  |
| 15.)What can you conclude from this example? |