**Honors Math 3** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit 5 Review

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| 1. Find the inverse of and graph both functions. Then, state the domain, range, and asymptote of both.

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|  | **Domain** | **Range** | **Asymptote** |
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 | 1. Find the inverse of and graph both functions. Then, state the domain, range, and asymptote of both.

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|  | **Domain** | **Range** | **Asymptote** |
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| 1. You invest $2,000 at 5% interest compounded monthly. How much will you have in your account after 4 years?
 | 1. You invest $5,000 at 8% interest compounded continuously. How much will you have in your account after 5 years?
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| 1. You want to double your investment of $3,500. You invest at 3%. How long will it take to double your investment if interest is compounded daily?
 | 1. You deposit $6,200 into an account that earns 2% interest compounded continuously. How long will it take the account to triple?
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**Solve each equation. Round each answer to the hundredths.**

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| 1. Evaluate the following expressions:
 | 1. Simplify
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| 1. How would you rewrite the function that had been translated right 3 units and down 4 units?
 | 1. Condense the following logarithms:
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| 1. Rewrite the equation in natural log (ln) form.
 | 1. Rewrite in exponential form.
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Graph the following piece-wise functions. Then, state the domain and range for each.

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| 1. *f(x)* =

 | 1. *f(x)* =

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