Make sure to show all work if you want credit.

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| **Evaluate the given log using the change of base formula** | | |
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| **Expanded form using the properties of logarithms.** | | |
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| **Condense the logarithmic expression till you have a single logarithm.** | | |
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| **Solve for x.** | | |
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| **Answer the following application problems.** | | |
| 1. Ricardo invests $8650 in an account that earns 3.9% interest compounded continuously. What is the total amount of his investment after 9 years?   Identify the following:  *P= t=*  *n=*  *r= P(t)=* | 1. Suppose that $590 is deposited into an account that pays 3.5% compounded quarterly. How long will it will take for the account to contain at least $800?   Identify the following:  *P= t=*  *n=*  *r= P(t)=* | 1. If you deposit $4000 into an account paying 9% annual interest compounded monthly, how long until there is $10,000 in the account?   Identify the following:  *P= t=*  *n=*  *r= P(t)=* |
| 1. If you deposit $5000 into an account paying 8.25% annual interest compounded semiannually, how long until there is $9350 in the account. Use the following formula to find the length of time. | 1. Mrs. Peters deposited $6000 into an account paying 6.5% annual interest compounded quarterly, how long would it take the money to grow to $12600? | 1. Mr. Malt took $4500 of savings to invest in the Dallas Pounce Co-op. The Co-op said that they would pay him back in 10 years. The guaranteed a 5% interest compounded monthly. How much will Mr. Malt have at the end of that period of time? |