Homework 3.6: Natural Logs & Base *e* Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Math 3

**Directions:** Expand each expression.

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**Directions:** Solve each equation for x. Check your answer.





**Directions:** Write and solve an equation for each of the following. Show all work.

1. 
2. 
3. 
4. A continuously compounded savings account had an initial deposit of $10,000.00 and 10 years later has a balance of $13,125.87. At what interest rate was the savings account?
5. $250.00 is left in a savings account at 4.0% and the interest is compounded continuously. If the balance is now $330.78, then how many years was the money been in the account?
6. Hearing about the PlayStation 4 release 3.5 years ago, a teenager put his savings of $500.00 into a continuously compounded savings account. He now has $619.65. At what fixed rate was the interest?