NAME _____ DATE _____ PERIOD _____

11-6

Practice

Natural Logarithms

Evaluate each expression.

1. ln 71
4.2627

2. ln 8.76
2.1702

3. ln 0.532
−0.6311

4. antiln −0.256
0.7741

5. antiln 4.62
101.4940

6. antiln −1.62
0.1979

Convert each logarithm to a natural logarithm and evaluate.

7. $\log_7 94$
2.3348

8. $\log_5 256$
3.4454

9. $\log_9 0.712$
−0.1546

Use natural logarithms to solve each equation or inequality.

10. $6^x = 42$
2.0860

11. $7^x = 4^{x+3}$
7.4317

12. $1249 = 175e^{-0.04t}$
−49.1328

13. $10^{x+1} > 3^x$
$x > -1.9125$

14. $12 < e^{0.048y}$
$y > 51.7689$

15. $8.4 < e^{t-2}$
$t > 4.1282$

16. ***Banking*** Ms. Cubbatz invested a sum of money in a certificate
of deposit that earns 8% interest compounded continuously. The
formula for calculating interest that is compounded continuously
is $A = Pe^{rt}$. If Ms. Cubbatz made the investment on January 1,
1995, and the account was worth $12,000 on January 1, 1999,
what was the original amount in the account? **$8713.79**

11-6

Spirals

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170°

180°

190°

200°

210°

22

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2. Plot the po
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