Math 171
Exponential and Logarithmic Functions

Solve:

1. \( e^{5.7} \)

2. If a house is worth $85,000 and inflation is 6% per year, what would the value of the house be if the inflation were compounded annually? And what would the value of the house be if the inflation were compounded continuously.

Write in exponential form:

3. \( 3 = \log_4 x \)

Write in logarithmic form:

4. \( 4^x = 64 \)

Solve:

5. \( \log_{81} x = 9 \)
6. \( 2^x = 128 \)

Graph

7. \( -\log_2(x) + 3 \)
8. \( 5^x + 2 \)

Write in expanded form:

9. \( \log_7 \left( \frac{2x}{(x + 2)^2} \right) \)

Write in condensed form:

10. \( 2\log_a x + 3\log_a y - \frac{1}{2}\log_a z \)