Math 105, Section 052 - Quiz 6   Name: _____
Date: 2/14/18

Write legibly, show work and indicate your final answers. No books, notes, etc. are permitted. This is double sided. Good luck!

1. (12 *points*) Solve for x in the following equations algebraically. Show all your work step by step and write your answers in **exact form** to receive full credit.

   (a) $4(10^{2\log(x)+1}) = 3$

   (b) $e^{kx} = 2e^{x+2}$

   (c) $\log(100x) = 2 + 2\log(x^2)$

2. (14 *points*) Fill out the following table of log properties. In the second column, write out the corresponding rule as if we were using the natural log (ln).

Log Property	Natural Log Property
$\log(1) =$	
$\log(\quad) = 1$	
$\log(AB) =$	
$\log(\quad) = \log(A) - \log(B)$	
$\log(B^u) =$	
$\log(\quad) = u$	
$10^{(\quad)} = u$	