MAE 301/501 HOMEWORK–5 DUE ON THURSDAY, OCTOBER 21

One goal for this course is for you to develop your skill in effectively communicating mathematics. With this in mind, you should clearly write up your solutions. Solutions with little or no justification will receive little or no credit.

(1) What is a definition of the function e^x? (The definition of the number $e^1 = e$ should be included somehow in your definition.)

(2) What is a definition of $\ln x$.?

(3) At what level/grade/course would you develop with students the definition you gave for the function e^x?

(4) Is there a different definition of the exponential function that you would develop later (or sooner)? It is fine to take a look at the NY State Modules and the "Next Generation" Standards, along with any other math books to help develop your ideas. Make sure you cite any sources you use.