Homework #7

Due: 3/26/2019 5:45pm

Reading

Read sections 10.1 and 10.2.

Problems

1. Sketch the graph $y = -2 \left(\frac{3}{2} - e^{3-x} \right)$ by:

   (a) Performing the necessary algebra so that the function is in the proper form (i.e., the transformations are in the proper order).

   (b) Listing the transformations in the order that they are to be applied.

   (c) Marking the key point and horizontal asymptote.

   (d) Calculating and marking all existing intercepts.

   (e) Sketching the final graph.

2. You open a new savings account on April 1 with an initial $1000 at a local bank that pays 2% interest, compounded monthly on the last day of the month. You file the necessary direct deposit paperwork at you job, where you get paid monthly on the first of the month, so that $500 will be auto-deposited into your new account each month, starting with your May paycheck. In June, you withdraw $250 to pay for a new mobile phone. In July, you withdraw $750 to help pay for your summer vacation. There are no other transactions. What is your account balance on August 2?