WebAssign Homework Hints: Lessons 35 – 40

Lesson 35 assignment:

- On problem #3, graph $f(x) = a^x$ first, then use transformations to graph the remaining functions. You can also graph the transformations of a^x by making an xy-chart for each new function.
- On problem #4, the equation of a horizontal asymptote will be the equation of a horizontal line; think about how the equation of a horizontal line would be written ($x = \#\ or\ y = \#$). To find the horizontal asymptote, either plug very large or very small inputs into the function.
- On problem #6, only the time (the value of t) will change for each part. Also, keep in mind order of operation when entering your answer into a calculator (parentheses, exponents, multiply). Use the Calculator Tips document on the course website for more help.
- On problem #9, graph $f(x) = e^x$ first, then use transformations to graph the remaining functions. You can also graph the transformations of e^x by making an xy-chart for each new function. The same is true on #10.
- On problems #7, 8, 11, and 12, be sure to round to the correct decimal place.

Lesson 36 assignment:

- On problems #1 – 4, keep in mind that regardless of whether you are changing from exponential form to logarithmic form, or from logarithmic form to exponential form, the base does **NOT** change.
- On problem #6 part (g), use the Product Rule for Exponents to simplify the expression.
- On problems #7 – 11, be sure to check your answers.

Lesson 37 assignment:

- On problem #7, find the initial population (the population in 1980) first, then replace $N(t)$ with twice that population and solve for t.
- On problem #8, 1 billion is 1,000 million.

Lesson 38 assignment:

- On each problem, make sure the argument of each logarithm is as simplified as possible.

Lesson 39 assignment:

- On problems #1 – 5, simplify both sides of the equations as much as possible using the Properties of Logarithms, then solve by either by setting the arguments equal to one another (if the bases are the same), or converting from log form to exponential form.
- On problems #6 and 7, use the Properties of Logarithms to expand each function, then graph using any method.
- On problem #10, use the Properties of Logarithms to expand each expression, then set the equation to zero and solve by factoring.

Lesson 40 assignment:

- Pay attention to when the directions ask for approximate answers, and when you should enter exact answers.