**Pre-Calculus 12 Final Exam Review**

1. Solve for , , and then give a general solution.
2. Solve each equation for , rounding solutions to the nearest tenth of a radian when necessary.
3. Prove each identity algebraically.
4. Simplify each expression.
5. Give the exact value of each expression.
6. Solve.
7. Find the value of *x*.
8. =4
9. Write as a single logarithm.
10. Solve for x. Round to the nearest hundredth.

10. Solve each logarithmic equation for x.

1. The trout population in a lake has been doubling every five years. There were 200 trout at the initial count. How many trout will there be in 12 years.
2. An excavating company has a digger that was purchased for $140 000. It is depreciating at 12% per year. How much will the digger be worth in 7 years?