**Pre-Calculus Final Exam**

Name and date (3 pts):

Instructions: Complete the following problems on separate paper. Keep the SAME NUMBERING SYSTEM as the book, and circle or box-in your final answers so I can grade them.

Email your finished product to [kjohanson@san.rr.com](mailto:kjohanson@san.rr.com)

YOU MUST SHOW YOUR WORK to get credit.

Page numbers refer to the OpenStax Pre-calculus book.

Ch. 2.1, p. 140-141: #38 (find the slope), #64 (find the value of y)

Ch. 2.2, p. 159: #18a.b. (you are given a pair of lines)

Ch. 2.3, p. 173: #48a.b.c. (phone company problem)

Ch. 2.4, p. 186: #42 (predict when the profit of a company will dip)

Ch. 3.2, p. 223: #92 (ball thrown in the air)

Ch. 3.5, p. 264: #70 (find the height of a box)

Ch. 4 practice test, p. 437: #1 (but change the time to 5 years), #3 (but change the money to $3,500 and the APR to 5.25%), and #14, #16 (logarithm problems)

Ch. 5 review exercises, p. 502: #16 (a car wheel), #48 (solve the triangle)

Ch. 5 practice test, p. 504: #2, #4 (radian problems), and #24 (height of building)

Ch. 6.1, p. 520: #24 (analyze a cosine graph)

Ch. 6 practice test, p. 556: #14 (write the sine function)

Ch. 8 practice test, p. 755: #2 (triangle), and #4 (polar coordinates), #10 (graph), #22 (ball is launched, answer all parts)

Ch. 9 practice test, p. 861: #2, #4, #6, #30 (ticket revenue)

Ch. 10 practice test, p. 936: #12 (equation of parabola)

Ch. 11 review exercises, p. 1012: no problems, since you just took the chapter quiz.

**IMPORTANT: Make sure you answered all 27 problems!**