Math 190 Test 2
November 25, 2014

Name: _____

Note that both sides of each page may have printed material.

Instructions:

1. Read the instructions.
2. Don't panic! I repeat, do NOT panic!
3. Complete all problems. In this exam, each problem is worth 10 points.
4. Show ALL your work to receive full credit. You will get 0 credit for simply writing down the answers. Make sure your answers are fully simplified.
5. Write neatly so that I am able to follow your sequence of steps and box your answers.
6. Read through the exam and complete the problems that are easy (for you) first!
7. No scrap paper, calculators, notes or other outside aids allowed—including divine intervention, telepathy, knowledge osmosis, the smart kid that may be sitting beside you or that friend you might be thinking of texting. In fact, **cell phones should be out of sight!**
8. Use the correct notation and write what you mean! x^2 and $x2$ are not the same thing, for example, and I will grade accordingly.
9. Other than that, have fun and good luck!

Remember: This is the test this class deserves, and also the one it needs right now. *Start DK theme*

1. Simplify $\frac{\left(r^{-2}s^{1/3}\right)^6}{r^8 s^{3/2}}$ leaving only positive powers in your answer.

2. Expand and simplify: $\left(a^{1/2} - 3^{3/2}\right)\left(a^{1/2} + 3^{3/2}\right)$

3. Rewrite the expression without parentheses: $\left(3x^{1/2} - 4y^{1/2}\right)^2$

4. Factor completely: $6(x+3)^{15/7} - 12(x+3)^{8/7}$

5. Rationalize the denominator and simplify: $\frac{\sqrt{x+1}}{1-\sqrt{x+1}}$

6. Simplify: $\sqrt{18a^{11}b^7} + a^2b\sqrt{32a^7b^5}$

7. Rewrite $\frac{12}{\sqrt{8}+\sqrt{5}}$ as an expression that doesn't involve fractions.

8. Solve the equation: $1 + \sqrt{x+6} = \sqrt{2x+13}$

9. Find the equation of the straight line through points $(-8, -3)$ and $(-4, -4)$.

10. Find the equation of the line through $(6, 5)$ that is perpendicular to $3x + 11y = 4$