MAT 100 Precalculus

Homework 14 (updated 10/31)

Basic Information

This assignment is due on Gradescope by **1:30 PM on Monday, November 2**.

Make sure you understand MHC honor code and have carefully read and understood the additional information on the class syllabus. I am happy to discuss any questions or concerns you have!

A component of this class is helping you understand *why* the math you use works the way it does. To that end, make sure you show all your work as you will be graded on the *process* you use, not just your final answer. And if a question asks you to explain *why* something is true, be sure to answer that part of the question in complete sentences.

Homework will be graded for correctness, and I will point out where mistakes or errors are made. Each homework will be graded *Excellent*, *Satisfactory*, or *Unsatisfactory*. The course rubric explains more about the distinctions of these categories.

Turn-In Problems

3.4: 2
3.7: 6, 12, 18, 40

#6. Without using a calculator, write the following expressions with only one exponent.

(a) $3^2 \cdot 3^5$
(b) $(3^2)^5$

#7. Simplify this expression as much as possible:

$$\frac{x^4 \cdot y^2}{x^{-1} \cdot y^3 \cdot z}$$

#8. Write this expression as a root instead of with a fractional exponent.

$8^{2/3}$

#9. Redo 3.5: 12, 24, 30 from the last HW but use Desmos to find the roots instead of the Rational Root Test.

Additional Problems (to do on your own, not to turn in)

3.4: 1
3.7: 7, 11, 17, 39