

Basic Information

This assignment is due on Gradescope by **1:30 PM on Thursday, October 22**.

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

3.1: 18, 20

3.2: 10, 12, 16, 28

#7. Factor the polynomial $f(x) = x^2 - 3x - 4$.

#8. Factor the polynomial $f(x) = 6x^2 + x - 2$.

#9. Complete the square to write the polynomial $f(x) = x^2 + 4x - 1$ in vertex form.

#10. Multiple the following polynomial out until there are no parentheses left and then combine like terms $f(x) = (x - 2)^2(x + 3)(x - 5)$

#11. Find the roots of the polynomials in question #8

#12. Find the roots of the polynomial in question #9.

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

3.1: 17, 19

3.2: 9, 11, 15, 27