Exam 3 review guide

MAT 1110, Fall 2017

The third exam is Thursday, November 9. It covers the material on homework assignments 5.1 through 6.2.

Fundamentals

Identify the degree and leading term of a polynomial
Graph simple polynomial functions using transformations of graphs
Polynomial long division
Factor a polynomial completely and identify all of its zeros
Write polynomial function that matches a list of zeros
Graph a polynomial
Find the domain of a rational function
Graph simple rational functions using transformations
For a rational function, know how to identify the following: horizontal and slant asymptotes, vertical asymptotes, x-intercepts, and holes
Graph a rational function
Evaluate a composition of two (or more) functions
Find the domain of a composition
Use the horizontal line test to determine if a function has an inverse
Test two formulas to see if they are inverse functions
Find the inverse of a function that is one-to-one

Advanced topics

Solve inequalities involving polynomial and rational expressions
Write a polynomial function that matches a graph
Write a rational function that matches a graph