

Math 1050-2 Practice Exam 1

Below is a list of problem **types**. These are the types of problems you might see on the exam. Certainly, not all of these problems will appear on the exam (there isn't enough time for that); and it is entirely possible that a problem will appear on the exam which does not fit into any of these types.

1. What is an *equation*? What is the *graph* of an equation?
2. When are two lines parallel? When are they perpendicular?
3. Factor the following polynomial.
4. Multiply these two polynomials. Add these two polynomials.
5. Rationalize the denominator. Rationalize the numerator.
6. Solve the following equations.
7. Describe what a *function* is. Be sure to include any Very Important Properties.
8. Match each of the following functions with their graphs. Which have inverses?
9. Given below is the graph of the function f . If g is given in terms of f , sketch the graph for g . For example, g might be given as $g(x) = 2f(x - 1) + 3$.
10. Show that these two functions are inverses of one another.
11. Find the inverse of this function.
12. The problem of composing two functions graphically, which we talked about in class.
13. Prove that if f is an odd function and if g is an even function, then fg is odd and $g \circ f$ is even.
14. True or False problems.