

Parametric Equations for Curves

Reading

Section 12.1, 12.2

Problems

Practice Exercises: 12.1 7, 8, 11, 23, 25, 49, 51, 53, 55, 75, 81

Practice Exercises: 12.2 3, 5, 7, 11

Exercises to turn in: 12.1 12, 52, 12.2 6, 28

Parametric Equations

This section will just refer to important parts of the text to focus on:

12.1

- Example 2 on eliminating the parameter
- Theorem 1 and example 4 on how to parametrize linear curves
- Parametrizing a circle, at top of page 616
- Example 5 on parametrizing an ellipse
- Example 6 on how the same curve can have different parametrizations
- Example 8 on the cycloid and its parametric equations
- Theorem 2 on the slope of the tangent line in parametric form

12.2

- Theorem 1 and the description up to that point
- Example 1 calculating the arc length of a circle in that way
- Example 2 calculating the length of the cycloid